

This document gives pertinent information concerning reissuance of the VPDES Permit listed below. This permit is being processed as a **Minor, Industrial** permit. The discharge results from the operation of a wood pressure treating facility. This permit action consists of updating the proposed effluent limits to reflect the current Virginia WQS (effective January 6, 2011) and updating permit language as appropriate. The effluent limitations and special conditions contained in this permit will maintain the Water Quality Standards of 9VAC25-260 et seq.

1. Facility Name and Mailing Address: Culpeper Wood Preservers
P.O. Box 1148
Culpeper, VA 22701
SIC Code : 2491 (Wood Preserving)

Facility Location: 15487 Braggs Corner Road
Culpeper, VA 22701
County: Culpeper

Facility Contact Name: Mr. Joseph R. Daniel
Telephone Number: (540) 825-5898
Facility E-mail Address: Joe_daniel@culpeperwood.com

2. Permit No.: VA0059145
Expiration Date of previous permit: 7/24/2015

Other VPDES Permits associated with this facility: None
Air Registration No. 91002
Other Permits associated with this facility: Petroleum Registration Site 3002757
RCRA Hazardous Waste Permit (VAR000004846)

E2/E3/E4 Status: NA

3. Owner Name: Jefferson Home Builders
Owner Contact/Title: Mr. Joseph R. Daniel/President
Telephone Number: (540) 825-5898
Owner E-mail Address: Joe_daniels@culpeperwood.com

4. Application Complete Date: 12/2/2014
Permit Drafted By: Anna Westernik
Date Drafted: 3/4/2016
Draft Permit Reviewed By: Doug Frasier
Date Reviewed: 3/10/2016
Draft Permit Reviewed By: Alison Thompson
Date Reviewed: 4/26/2016
Public Comment Period : Start Date: End Date: ?

5. Receiving Waters Information: Discharge is to an intermittent stream with a drainage area of < 5 square miles. Hence, it is assumed that critical stream flows are 0.0 MGD. In drafting of this permit, all flows were considered to be 0.0 MGD.

Receiving Stream Name :	Jonas Run, UT	Stream Code:	3-XDJ
Drainage Area at Outfall:	0.33 sq.mi.	River Mile:	3.25
Stream Basin:	Rappahannock River	Subbasin:	None
Section:	4	Stream Class:	III
Special Standards:	None	Waterbody ID:	VAN-E09R
7Q10 Low Flow:	0.0 MGD	7Q10 High Flow:	0.0 MGD
1Q10 Low Flow:	0.0 MGD	1Q10 High Flow:	0.0 MGD
30Q10 Low Flow:	0.0 MGD	30Q10 High Flow:	0.0 MGD
Harmonic Mean Flow:	0.0 MGD	30Q5 Flow:	0.0 MGD

6. Statutory or Regulatory Basis for Special Conditions and Effluent Limitations:

<input checked="" type="checkbox"/> State Water Control Law	<input checked="" type="checkbox"/> EPA Guidelines
<input checked="" type="checkbox"/> Clean Water Act	<input checked="" type="checkbox"/> Water Quality Standards
<input checked="" type="checkbox"/> VPDES Permit Regulation	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> EPA NPDES Regulation	

7. Licensed Operator Requirements: NA

8. Reliability Class: NA

9. Permit Characterization:

<input checked="" type="checkbox"/> Private	<input checked="" type="checkbox"/> Effluent Limited	<input type="checkbox"/> Possible Interstate Effect
<input type="checkbox"/> Federal	<input checked="" type="checkbox"/> Water Quality Limited	<input type="checkbox"/> Compliance Schedule Required
<input type="checkbox"/> State	<input checked="" type="checkbox"/> Whole Effluent Toxicity Program Required	<input type="checkbox"/> Interim Limits in Permit
<input type="checkbox"/> WTP	<input type="checkbox"/> Pretreatment Program Required	<input type="checkbox"/> Interim Limits in Other Document
<input type="checkbox"/> TMDL	<input checked="" type="checkbox"/> e-DMR Participant	

10. Wastewater Sources and Treatment Description:

Culpeper Wood Preservers is a facility that primarily treats white pine lumber using a 1% solution of Micronized Copper Azanol (MCA). A small amount of lumber is treated with a 1% to 2% solution of Borate (Disodium Octaborate Tetrahydrate). The active ingredients in MCA and Borate are copper carbonate, tebuconazole, and borate. See **Attachment 1** for the Safety Data Sheets (SDS). Discharge from the facility is comprised of industrial associated stormwater only. Process water used for pressure treating lumber is obtained from non-potable production and monitoring wells on site and stored in a pond. The wastewater from the process is reused for treatment; none is discharged.

White pine lumber is received at the facility by either truck or rail. The wood is then inspected, sorted, and labeled for processing. Dimensional lumber is treated in one of three cylinders where the chemical solutions are introduced into the wood via pressure.

The chemical solution used in the wood treatment process is mixed in the onsite holding pond using water from the following wells: Production Well 3, Monitoring Well 5D, and Monitoring Well 6D. Monitoring Well 3D is also used on occasion. Data from 2014 and 2015 monitoring events shows that arsenic and total chromium were found above detection levels in Monitoring Well 5D and Monitoring Well 6D. No recent data was found for Monitoring Well 3D. However, August 2007 intermediate and deep analytical results from these monitoring wells shows detectable levels of arsenic, chromium, and copper. In particular, chromium and arsenic were detected in Monitoring Well 3D; chromium, arsenic, and copper were detected in Monitoring Well 5D, and chromium and copper were detected in Monitoring Well 6D. See **Attachment 2** for a summary of groundwater analysis for all monitoring wells on site (MW-1I, MW-ID, MW-IS, MW-5S, MW-5-I, MW-5D, MW-6S, MW-6I, MW-6D) for the 2013 to 2015 period.

There are three sumps onsite. Sump 1 and sump 3 discharge into the holding pond. Sump 2 discharges into sump 3 that discharges into the holding pond. Sumps 2 and 3 are influenced by seasonally fluctuations in precipitation and shallow groundwater.

After treatment, the lumber is placed on an elevated covered drip pad for drying until drippage ceases (a 12 to 48 hour period). The drip pad areas have secondary containment with impermeable plastic liners that are sloped towards a sump located under each treatment cylinder. Any chemical that may have dripped from the lumber is captured on the pad, filtered, and reused in the manufacturing process. The sump system is periodically cleaned to remove any sediment that has accumulated during the treatment process. The sediment is returned to the chemical supplier for treatment and disposal in accordance with the facility's RCRA Hazardous Waste Permit (VAR000004846). All processing occurs within a 20-acre covered facility. The majority of storage of the treated lumber (approximately 80%) is under roof until it is shipped to the customer.

The majority of chemical treatment products are stored within a tank farm. This area has a closed loop system within secondary containment where all loading, mixing and recycling takes place. See **Attachment 3** for a schematic of the chemical storage areas.

Past chemicals used at this site to treat lumber include CCA (chromated copper arsenate), ACQ-C² (10% copper oxide in aqueous ammonia), and Ecolife (4,5-Dichloro-2-N-octyl-4-isothiazolin-3-one).

See **Attachment 4** for the NPDES Permit Rating Worksheet.

See **Attachment 5** for a facility schematic/diagram.

TABLE 1 – OUTFALL DESCRIPTION				
Outfall Number	Discharge Sources	Treatment	Max 30-day Flow	Outfall Latitude/Longitude
001	Industrial Stormwater	See Item 10 above.	1.4 MGD (Based on DMR Flow Data from Sep 2010 – Dec 2015) Variable Due to Stormwater Flow	38° 29' 5" N 77° 57' 25" W
See Attachment 6 for the Culpeper East (DEQ #184B) Topographic Map.				

11. Solids Treatment and Disposal Methods:

Drip pads and tramways are cleaned at least weekly. Cylinder sludge, which consists of an accumulation of dirt, saw dust, wood fibers and small amounts of treating solution, is disposed of as hazardous waste. Material from the drip pads and cylinders is placed in a U.S. Department of Transportation 55-gallon drum with a DOT hazardous materials waste label indicating the accumulation start date, the nature of the drum's contents, and the U. S. Environmental Protection Agency (EPA) generator identification number. Loose debris, such as wood, gravel, or strapping are removed from the storage and travel areas of the drip pad daily. These materials should be placed in waste drums for proper disposal.

12. Wastewater Discharges to Waterbody VAN-E09R

TABLE 2 DISCHARGES WITHIN WATERBODY VAN-E09R		
Individual VPDES Discharge Permits		
Permit No.	Facility Name	Receiving Stream
VA0061590	Culpeper Wastewater Treatment Plant	Mountain Run
VA0092452	Camp Red Arrow WWTP	Mountain Run, UT
VA0085723	Culpeper Petroleum Cooperative	Mountain Run, UT
VA0062529	Ferguson Sewage Treatment Plant	Jonas Run, UT
Nonmetallic Mineral Mining General Permits		
Permit No.	Facility	Receiving Stream
VAG840107	Luck Stone - Culpeper	Potato Run, UT
VAG840107	Luck Stone - Culpeper	Mountain River, UT
Concrete General Permit		
Permit No.	Facility Name	Receiving Stream
VAG110315	Allied Concrete - Braggs Corner Plant	Jonas Run, UT

TABLE 2 (Continued)
VPDES DISCHARGES WITHIN WATERBODY VAN-E09R

Stormwater Industrial General Permits		
Permit No.	Facility Name	Receiving Stream
VAR051622	Community Trash Removal Incorporated - Updike Dr.	Mountain Run, UT to Lake Pelham
VAR051113	Ardent Mills Limited Liability Company	Mountain Run, UT
VAR051291	Masco Cabinetry Limited Liability - Culpeper	Mountain Run, UT
VAR051441	Culpeper Wastewater Treatment Plant	Mountain Run
VAR050900	Bingham and Taylor Corp – Div. of Virginia Ind.	Mountain Run, UT
VAR051087	Quarles Petroleum - Culpeper Bulk Plant	Jonas Run, UT
VAR050855	TE Connectivity	Mountain Run, UT
VAR052293	AMRF Incorporated	Jonas Run, UT
VAR051573	Culpeper Municipal Power Plant - New Facility	Mountain Run, UT
VAR051928	Culpeper Recycling	Jonas Run, UT
VAR051878	Wise Services and Recycling LLC	Mountain Run
VAR051952	Culpeper Towing and Salvage Incorporated	Mountain Run, UT
VAR050864	Superior Paving Corporation - Culpeper Plant	Mountain Run, UT
Single Family Home General Permits		
Permit Number	Facility Name	Receiving Stream
VAG406112	Lewis Fields Farm Residence	Potato Run
VAG406268	Payne John R Jr Residence	Potato Creek
VAG406497	Jenkins David F Residence	Jonas Run, UT
VAG406341	Stanley Raymond Residence	Mountain Run, UT
VAG406446	Settle David Property	Caynor Lake, UT
VAG406408	Clatterbuck Jr Charles L - Property	Flat Run, UT
VAG406096	Knight Thomas and Candace Residence	Jonas Run, UT
VAG406199	Kipp III John R Residence	Flat Run, UT
VAG406200	Leake Billy R Residence	Potato Run
VAG406219	Sanders Jr Dexter Residence	Sumerduck Run, UT
VAG406140	Nichols Janice Residence	Potato Run
VAG406032	Fyne Wire Specialties Incorporated	Jonas Run, UT
VAG406070	Jenkins Wade W Residence	Potato Run, UT
VAG406485	Darland David S Residence	Mountain Run, UT
VAG406572	Smoot Heather Residence	Mountain Run, UT
VAG406357	Bradley Herman L and Deborah S Residence	Mountain Run, UT
VAG406458	Benford Wilbur Residence	Jonas Run, UT
VAG406553	21500 LLC Residence	Flat Run, UT
VAG406356	Wenzel Dorothy G - Residence	Balds Run, UT
VAG406561	Zeamer Steven Residence	Jonas Run, UT
VAG406072	Canland Properties Limited Liability Corporation	Jonas Run
VAG406307	Amick Grover Residence	Thorny Branch
VAG406538	Patel Ramesh Residence	Jonas Run, UT
VAG406321	Statewide Enterprises LLC	Jonas Run, UT
VAG406261	Blake William E Residence	Potato Run, UT
VAG406163	Lavinger David Residence	Sumerduck Run
VAG406568	Jenkins Marvin N et al Residence	Balds Run, UT
VAG406301	Haught Howard L Residence	Mountain Run, UT
VAG406054	Dykes Richard Residence	Bold Run, UT
VAG406569	Smoot Charles and Patrice Residence	Mountain Run, UT
VAG406186	Bannister Charles L Residence	Cedar Run, UT

TABLE 2 (Continued) VPDES DISCHARGES WITHIN WATERBODY VAN-E09R		
Single Family Home General Permits		
Permit Number	Facility Name	Receiving Stream
VAG406213	Woodard William F Residence - Rapidan	Rapidan River, UT
VAG406266	Baker Mark T Residence	Rapidan River, UT
VAG406214	Durkee Property	Cedar Run, UT
VAG406525	Green Jeremy B Residence	Jonas Run, UT
VAG406081	Sanders Dexter Residence	Sumerduck Run
VAG406182	Kritter Eugene J Residence	Potato Run
VAG406324	Breeding Shane Residence	Jonas Run, UT
VAG406117	Hinton Hortense B Residence	Potato Run, UT
VAG406355	Harmon Mildred - Residence	Flat Run
VAG406471	First Baptist Church of Culpeper	Jonas Run, UT
VAG406564	AMRF Storage Facility	Jonas Run, UT
VAG406495	Malone Ernest Residence	Mountain Run, UT
VAG406371	Tyler Alma - Residence	Flat Run, UT
VAG406239	Shockley Melinda Residence	Cedar Run
VAG406167	Platts Wallace Residence	Potato Run, UT
VAG406127	Eiskant Edward E Residence	Potato Run

13. Material Storage:

TABLE 3 - MATERIAL STORAGE		
Materials Description	Volume Stored	Spill/Stormwater Prevention Measures
MP-200A (MCA)	10,000 gallons	Enclosed Storage Area
TimberSaver PT (Borate Powder)	10,000 pounds	Storage Area
TimberSaver PT (Borate Concentrate)	3,000 gallons	Storage Area
CleanWood AC	1,500 gallons	Enclosed Storage Area
CleanWood 45 Plus	1,500 gallons	Enclosed Storage Area
Aqueous Premium Blue Wood Stain (Concentrate)	300 gallons	Enclosed Storage Area

14. Site Inspection:

Performed by DEQ staff members; Anna Westernik, Angela McGarvey, Lisa Janovsky, and Martin Robinson on February 26, 2016 (**Attachment 7**).

15. Receiving Stream Water Quality and Water Quality Standards:**a. Ambient Water Quality Data**

This facility discharges to an unnamed tributary to Jonas Run (Streamcode 3-XDJ) that was assessed based on fish tissue/sediment monitoring station 3-XDJ000.14. The following is the water quality summary for this segment, as taken from the 2012 Integrated Report:

Class III, Section 4.

DEQ monitoring stations located in this segment:

- fish tissue/sediment station 3-XDJ000.14

The aquatic life and fish consumption uses are considered fully supporting. The recreation and wildlife uses were not assessed.

The nearest DEQ station with ambient monitoring data is located within a segment of Jonas Run (JOA) that begins approximately 3.25 miles downstream from Outfall 001. Ambient Monitoring Station 3-JOA000.80 is located at Route 663 (Stevensburg Road), approximately 4.40 miles downstream from Outfall 001. The following is the water quality summary for this segment of Jonas Run, as taken from the 2012 Integrated Report:

Class III, Section 4.

DEQ monitoring stations located in this segment of Jonas Run:

- ambient monitoring station 3-JOA000.80, at Route 663 (Stevensburg Road)
- freshwater probabilistic monitoring station 3-JOA001.60, at Route 684

E. coli monitoring finds a bacterial impairment, resulting in an impaired classification for the recreation use. This impairment is nested within the downstream completed bacteria TMDL for Mountain Run. Biological monitoring finds benthic macroinvertebrate impairments, resulting in an impaired classification for the aquatic life use. The wildlife use is considered fully supporting. The fish consumption use is listed as fully supporting based on water column metals data.

b. 303(d) Listed Stream Segments and Total Maximum Daily Loads (TMDLs)

TABLE 4 – 303(d) LISTED STREAM SEGMENT AND TMDLS							
Waterbody Name	Impaired Use	Cause	Distance From Outfall	TMDL completed	WLA	Basis for WLA	TMDL Schedule
<i>Impairment Information in the 2012 Integrated Report*</i>							
Jonas Run	Recreation	<i>E. coli</i>	3.25 miles	Mountain Run Bacteria 4/27/2001	None (not expected to discharge pollutant)	---	---
	Aquatic Life	Benthic Macroinvertebrates		No	---	---	2024
Mountain Run	Fish Consumption	PCBs	5.20 miles	No	---	---	2018

*The Rappahannock River is listed with aquatic life and open-water aquatic life use impairments approximately 50 miles downstream from this facility. These impairments are listed in the 2014 Integrated Report, which is currently in draft format and is under review by EPA. It is expected that this segment of Rappahannock River will be listed for the aquatic life and open-water aquatic life use impairments in the final 2014 Integrated Report. There is a completed downstream TMDL for the aquatic life use impairment for the Chesapeake Bay. However, the Bay TMDL and the WLAs contained within the TMDL are not addressed in this planning statement.

The Chesapeake Bay TMDL implementation is currently administered in accordance with the Commonwealth of Virginia's Phase I Watershed Implementation Plan (WIP); approved by EPA on December 29, 2010. The approved WIP recognizes the *General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed of Virginia*, 9VAC25-820 et seq., as governing the nutrient allocations for non-significant Chesapeake Bay dischargers. Nutrient WLAs for non-significant industrial facilities were based on estimated Total Nitrogen (TN) and Total Phosphorus (TP) load levels obtained from Discharge Monitoring Report (DMR) data and typical effluent concentrations established by Standard Industrial Classification (SIC) codes.

The TN, TP, and Total Suspended Solids (TSS) wasteload allocations contained within the WIP are considered aggregate allocations. Per current agency guidance, monitoring of TN, TP, and TSS will be required during this permit term to verify these estimated facility nutrient loads made above and the subsequent aggregate wasteload allocations. Additionally, the DEQ

Planning Staff requests that the facility perform semi-annual nutrient monitoring during the entire permit term because the facility is located within a five mile distance upstream of a benthic impairment.

The planning statement is found in **Attachment 8**.

c. Receiving Stream Water Quality Criteria

Part IX of 9VAC25-260(360-550) designates classes and special standards applicable to defined Virginia river basins and sections. The receiving stream, an unnamed tributary to Jonas Run, is located within Section 4 of the Rappahannock River Basin and is a Class III water.

Class III waters must achieve a dissolved oxygen (D.O.) of 4.0 mg/L or greater, a daily average D.O. of 5.0 mg/L or greater, and a temperature that does not exceed 32° C at all times and maintain a pH of 6.0 – 9.0 standard units (S.U.).

1) Ammonia Criteria:

Ammonia criteria are not being evaluated with this permit reissuance because the facility discontinued use of ACQ-C² (10% copper oxide in aqueous ammonia) in August 2012.

2) Metals Criteria:

The Water Quality Criteria for some metals are dependent on the receiving stream and/or effluent total hardness values (expressed as mg/L calcium carbonate). The critical receiving stream flows are considered to be zero (see Section 5 of this fact sheet); therefore, the effluent data for hardness can be used to determine the metals criteria. The hardness-dependent metals criteria in **Attachment 9** are based on an average effluent value of 48.6 mg/L derived from effluent monitoring conducted from September 2010 to December 2015 (see **Attachment 10**).

d. Receiving Stream Special Standards

The State Water Control Board's Water Quality Standards, River Basin Section Tables (9VAC25-260-360, 370 and 380) designates the river basins, sections, classes, and special standards for surface waters of the Commonwealth of Virginia. The receiving stream, an unnamed tributary of Jonas Run, is located within Section 4 of the Rappahannock River Basin. This section has not been designated with a special standard.

e. Threatened or Endangered Species

The Virginia DGIF Fish and Wildlife Information System Database was searched on January 13, 2016 for records to determine if there are threatened or endangered species in the vicinity of the discharge. The following threatened or endangered species were identified within a 2-mile radius of the discharge: the Dwarf Wedgemussel, the Northern Long-Eared Bat, the Upland Sandpiper, the Loggerhead Shrike, the Green Floater, and the Migrant Loggerhead Shrike. The monitoring requirements proposed in this draft permit are protective of the Virginia Water Quality Standards and protect the threatened and endangered species found near the discharge.

Susan Lingenfelter of the United States Fish and Wildlife Service was sent a copy of the 2010 VPDES permit and the 2014 VPDES permit application for review on January 19, 2016. On February 2, 2016, Ms. Lingenfelter had questions about the reporting of copper (units and dissolved or total) and toxicity testing. The DEQ, Northern Regional Office requested revised copper data from the permittee. This data was sent to Ms. Lingenfelter on March 3, 2016. After review of the data, she asked on March 3, 2016 about measures being taken to mitigate the copper discharge levels. DEQ stated on that date that a holding pond liner study would be required, the Storm Water Pollution Plan would need to be revised, and increased frequency of toxicity testing would be required in this permit. She did not request a review of the draft permit because she stated these measures were adequate in addressing the copper issue.

Attachment 9 details all water quality criteria applicable to the receiving stream.

16. Antidegradation (9VAC25-260-30):

All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The receiving stream has been classified as Tier 1 based on the critical stream flows, surrounding industrial activity, and downstream impairments noted in Section 15 of this Fact Sheet. It is staff's best professional judgment that such streams are

Tier 1 since the proposed permit limits and monitoring requirements are set to maintain the Water Quality Standards. These permit conditions have been established that will result in attaining and/or maintaining all water quality criteria applicable to the receiving stream, including narrative criteria; providing for the protection and maintenance of all existing uses.

17. Effluent Screening, Action Level Development, Groundwater Monitoring:

a. Stormwater Monitoring

All discharge from this facility to the receiving stream is stormwater. Stormwater discharges are considered intermittent and as such, the primary concern would be acute water quality impacts. The duration of this discharge is not expected to occur for four or more consecutive days (96 hours). Water Quality Criteria for human health (and chronic toxicity to a lesser degree) are based upon long term, continuous exposure to pollutants from effluents. Stormwater discharges are short term and intermittent. Therefore, it is believed that acute criteria should be used to derive the screening criteria.

Screening (i.e., decision) values expressed as monitoring end-points have been established at two times the acute water quality criterion established in the Virginia Water Quality Standards (9VAC25-260 et.seq.). There are two primary reasons the end-points are established at two times the criterion. First, the acute criteria is defined as one-half of the final acute value (FAV) for a specific toxic pollutant. The FAV is determined from exposure of the specific toxicant to a variety of aquatic species and is based on the level of a chemical or mixture of chemicals that does not allow the mortality, or other specified response, of aquatic organisms. These criteria represent maximum pollutant concentration values, which when exceeded, would cause acute effects on aquatic life in a short time period.

Second, if it is raining a sufficient amount to generate a discharge of stormwater, it is assumed that the receiving stream flow will be greater than the assumed critical flows of 0.0 MGD for intermittent streams due to stormwater runoff within the stream's drainage area. In recognition of the FAV and the dilution caused by the rainfall, the monitoring end points were calculated by multiplying the acute Water Quality Criteria by two (2). The criteria for all pollutants can be found in **Attachment 9**.

Action level screening values are applied solely to identify those pollutants that should be given special emphasis during development of the Stormwater Pollution Prevention Plan (SWPPP). This permit established the stormwater action levels shown in Table 5 below based on an average hardness of 48.6 mg/L. Monitoring for copper is required because this it is currently used on site for wood treatment; additionally, the action level has been exceeded numerous times during the last permit cycle (see **Attachment 12**). Monitoring for arsenic and chromium is required because groundwater, with these parameters present above detectable levels, is used in the manufacturing operation. Therefore, these parameters could be present in the stormwater runoff as a result of the industrial activity.

Per Part III.D.1.a of the permit, the effectiveness of the SWPPP and Best Management Practices (BMPs) in use shall be reexamined within 90 days of the date of this permit reissuance and modified as necessary to address any deficiencies that caused the exceedences. The revised SWPPP with noted changes shall be submitted to DEQ for review within 120 days of this permit reissuance date.

Should stormwater monitoring results for a parameter exceed the given end point during this permit cycle, the permittee shall reexamine the effectiveness of the SWPPP and BMPs in use per Part III.D.j.2 of the permit to address any deficiencies that caused the exceedences.

TABLE 5 -- OUTFALL 001 STORMWATER BENCHMARK MONITORING CONCENTRATION VALUES	
Parameter	Maximum Limitation
Dissolved Arsenic	680 µg/L
Chromium VI	32 µg/L
Dissolved Copper	13.6 µg/L

In order to assess the presence of nutrients within the discharge for the downstream local benthic impairment and the Chesapeake Bay, this facility shall perform semiannual monitoring for TN, TP, and TSS at Outfall 001 for the duration of this permit.

All values shall be expressed as daily maximum levels.

b. Effluent Limitations – Federal Effluent Guidelines

40 CFR Part 429 establishes Federal Effluent Limitation Guidelines for the Timber Products Processing Point Source Category. This part applies to any timber products processing operation, and any plant producing insulation board with wood as the major raw material that discharges or may discharge process wastewater pollutants to the waters of the United States or that introduces or may introduce process wastewater pollutants into a publicly owned treatment works. The term “process wastewater” specifically excludes material storage yard runoff (either raw material or processed wood storage). Discharge of process wastewater is not allowed at this facility. Therefore, the requirements of 40 CFR Part 429 do not apply to this permit.

c. Groundwater Monitoring

A review of the annual groundwater monitoring results for 2013, 2014, and 2015 was conducted. The results show that copper, chromium, and arsenic were detected in the monitoring wells. Exceedence of the Virginia Statewide Groundwater Standards at 9VAC25-280-40 occurred for chromium and arsenic at Monitoring Well 6S (see **Attachment 2**).

On June 22, 1993, Culpeper Wood Preservers entered into an Order of Consent (AOC) with EPA per the Superfund Program (see Section 28 of this fact sheet and **Attachment 14**). Any groundwater corrective action needed at this site shall be enforced under this program.

Groundwater monitoring shall be conducted for the parameters shown in Part I.A.2 of this permit. Monitoring for Total Arsenic and Chromium VI will be required with this permit reissuance because these parameters are legacy pollutants found in the groundwater used at this site. Conductivity monitoring has also been added.

d. Effluent Limitations and Monitoring Summary

Stormwater and groundwater monitoring requirements are summarized in the following tables. Stormwater monitoring for flow, pH, total hardness, dissolved copper, chromium VI, dissolved arsenic, TN, TP, TSS, and toxicity is required. Sample type and frequency are in accordance with the recommendations in the VPDES Permit Manual. Groundwater shall be monitored for static water level, pH, conductivity, total copper, chromium VI, and total arsenic.

18. Antibacksliding:

All limits are as stringent as those in the last permit reissuance. Antibacksliding does not apply to this reissuance.

19. a Effluent Limitations/Monitoring Requirements:

The volume of flow discharged from Outfall 001 is variable. The maximum stormwater runoff from this industrial facility, based on past history, is 1.4 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/3M ^(a)	Estimate
pH (S.U.)	1, 2	NA	NA	6.0	9.0	1/3M ^(a)	Grab
Hardness, Total (mg/L as CaCO ₃)	2	NA	NA	NA	NL	1/3M ^(a, b)	Grab
Dissolved Copper (µg/L)	1	NA	NA	NA	NL	1/3M ^(a, b, c, d, g)	Grab
Chromium VI (µg/L)	1	NA	NA	NA	NL	1/3M ^(a, b, c, d, g)	Grab
Dissolved Arsenic (µg/L)	1	NA	NA	NA	NL	1/3M ^(a, b, c, d, g)	Grab
Total Kjeldahl Nitrogen (TKN) (mg/L)	3, 4, 5	NA	NA	NA	NL	1/6M ^(d, e)	Grab
Nitrate+Nitrite, as N (mg/L)	3, 4, 5	NA	NA	NA	NL	1/6M ^(e)	Grab
Ammonia (mg/L)	5	NA	NA	NA	NL	1/6M ^(d, e)	Grab
Total Nitrogen (mg/L)	3, 4, 5	NA	NA	NA	NL	1/6M ^(e, f, g)	Calculated
Total Phosphorus (mg/L)	3, 4, 5	NA	NA	NA	NL	1/6M ^(e, g)	Grab
Total Suspended Solids (mg/L)	3, 4, 5	NA	NA	NA	NL	1/6M ^(d, e, h)	Grab
Acute Toxicity – <i>C. dubia</i> (%)	2	NA	NA	NA	NL	1/3M ^(a, b, j)	Grab
Acute Toxicity – <i>P. promelas</i> (%)	2	NA	NA	NA	NL	1/3M ^(a, b, j)	Grab

The basis for the limitations codes are:

- | | | |
|---|------------------------------------|---------------------------------|
| 1. Virginia Water Quality Standards | MGD = Million gallons per day. | 1/3M = Once every three months. |
| 2. Best Professional Judgment | NA = Not applicable. | 1/6M = Once every six months. |
| 3. Chesapeake Bay TMDL/WIP | NL = No limit; monitor and report. | |
| 4. Guidance Memo No. 14-2011 – <i>Nutrient Monitoring for "Nonsignificant" Discharges to the Chesapeake Bay Watershed</i> | S.U. = Standard units. | |
| 5. Proposed Benthic TMDL for Jonas Run. | | |

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

- ^(a) The quarterly monitoring periods shall be January through March, April through June, July through September, and October through December. The DMR shall be submitted no later than the 10th day of the month following the monitoring period.
- ^(b) Dissolved Copper, Chromium VI, Dissolved Arsenic, toxicity, and total hardness monitoring shall be conducted concurrently.
- ^(c) The following action levels are applicable: Dissolved Copper 13.6 µg/L; Chromium VI 32 µg/L; Dissolved Arsenic 680 µg/L. See Part III.A and III.B for details regarding action levels and associated requirements.
- ^(d) The following quantification levels are applicable: TSS 1.0 mg/L; TKN 0.50 mg/L; Ammonia 0.2 mg/L; Dissolved Copper 2.7 µg/L; Chromium VI 6.4 µg/L; Dissolved Arsenic 90 µg/L.
- ^(e) The semiannual monitoring periods shall be January through June and July through December. The DMR shall be submitted no later than the 10th day of the month following the monitoring period.
- ^(f) Total Nitrogen = sum of TKN plus Nitrate+Nitrite.
- ^(g) See Part III of the permit for further reporting requirements.
- ^(h) TSS shall be expressed as two significant figures.
- ^(j) See Part I.C of the permit for Whole Effluent Toxicity (WET) testing requirements.

19. b Groundwater Monitoring Requirements

Monitoring Point: Groundwater monitoring wells MW-1S, MW-1I, MW-1D, MW-3S, MW-3I, MW-3D, MW-5S, MW-5I, MW-5D, MW-6S, MW-6I, MW-6D

Effective Dates: During the period beginning with the permit effective date and lasting until the groundwater monitoring at this location is administered by the EPA Superfund Program or until the permit expiration date, whichever occurs first.

PARAMETER	BASIS FOR LIMITS	LIMITATIONS	MONITORING REQUIREMENTS	
			Frequency	Sample Type
Static Water Level (ft./in.) (Measured to the Nearest 0.01 ft.)	1	NL	1/YR	Measured
pH (S.U.)	1, 2, 3	NL	1/YR	Grab
Conductivity (µmhos/cm)	1	NL	1/YR	Grab
Total Arsenic (µg/L)	1, 2, 3	NL	1/YR	Grab
Chromium VI (µg/L)	1, 2, 3	NL	1/YR	Grab
Total Copper (µg/L)	1, 2, 3	NL	1/YR	Grab

The basis for the limitations codes are:

- | | | |
|---|--|---|
| <ol style="list-style-type: none"> 1. Best Professional Judgment 2. 9VAC25 280-10 et seq. (State Water Control Board Groundwater Standards) 3. 40 CFR Part 142 (National Primary and Secondary Drinking Water Regulations) | <p>Static Water = The static water level shall be measured prior to bailing the well water for sampling. At least three volumes of groundwater shall be withdrawn immediately prior to sampling each monitoring well.</p> <p>NL = No limit; monitor and report.
S.U. = Standard units.</p> | <p>1/YR = Once every year. The monitoring data shall be submitted by the 10th of January of each year.</p> |
|---|--|---|

21. Other Permit Requirements:**a. Part I.B. of the permit contains quantification levels and compliance reporting instructions.**

Specific analytical methodologies for toxics are listed in this permit section as well as quantification levels (QLs) necessary to demonstrate compliance with applicable permit limitations or for use in future evaluations to determine if the pollutant has reasonable potential to cause or contribute to a violation. Required averaging methodologies are also specified.

b. Permit Section Part I.C. details the requirements for Whole Effluent Toxicity Program

Whole Effluent Toxicity (WET) refers to the aggregate toxic effect to aquatic organisms from all pollutants present within a facility's stormwater runoff. This program is one approach to comply with the Clean Water Act's prohibition of the discharge of toxic pollutants in toxic amounts. WET testing allows for the measurement of the stormwater's potential effects on specific test organism's ability to survive, grow and reproduce.

The VPDES Permit Regulation at 9VAC25-31-220.D.1.a-d requires limitations within permits to provide for and ensure compliance with all applicable requirements of the State Water Control Law and the Clean Water Act. Limitations must control all pollutants or pollutant parameters that the Board determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any Virginia water quality standard, including narrative criteria. The determination whether a discharge causes or contributes to an instream excursion above a narrative or numeric criteria shall utilize procedures that account for existing controls on sources of pollution, variability of the pollutant, species sensitivity and dilution of the effluent in the receiving stream. If it is determined that a reasonable potential exists to cause or contribute to an instream excursion of narrative criterion of the water quality standard, the permit must contain effluent limits for whole effluent toxicity. However, limits may not be necessary when it is demonstrated that chemical-specific limits are sufficient to attain and maintain applicable numeric and narrative water quality standards.

A WET Program is imposed for industrial facilities based on the facility's SIC code, instream waste concentration (IWC) and/or those required by the Board based on effluent variability, compliance history, existing treatment processes and/or the receiving stream characteristics. Stormwater runoff from wood preservers has been found to be potentially toxic to aquatic life due to the chemicals utilized in the past and present and previous operations and practices. Stormwater runoff is typically mitigated via onsite standard operating procedures (SOPs) and/or best management practices (BMPs) to minimize the migration of potential pollutants from the property.

However, during the previous permit term, the WET results for this facility revealed that the runoff from the property may potentially be toxic to the test species. Additionally, from September 2010 to December 2015, exceedences of the monitoring endpoint of 22 µg/L for copper occurred. Please refer to **Attachment 11** for all reported WET test results for this facility and **Attachment 12** for a summary of the copper data. Further evaluation of the test results suggest that changes to SOPs and/or BMPs may have occurred prior to the last permit term; thus, altering the stormwater runoff characteristics and creating a potential to negatively impact aquatic life within the receiving stream.

As stated above, previous WET results have indicated that the stormwater discharges may exhibit toxicity to the test species. Therefore, acute WET testing requirements will be carried forward with this reissuance with the same compliance endpoint of a No Observed Adverse Effect Concentration (NOAEC) of 100% effluent. Based on the reported test results during the previous permit term and staff's best professional judgment, the sampling frequency will be increased from once per calendar year to once per calendar quarter during this permit term, unless reassessment after eight quarters of consecutive monitoring deems that the monitoring frequency can be reduced. All WET monitoring shall be conducted concurrently with copper, chromium, arsenic, and total hardness monitoring.

22. Other Special Conditions:

a. Operations and Maintenance (O&M) Manual Requirement. Required by the Code of Virginia at §62.1-44.19, the VPDES Permit Regulation at 9VAC25-31-190.E, and 40 CFR 122.41(e). The permittee shall submit a revised O&M Manual that reflects current facility operations within 90 days of reissuance of this permit. The permittee shall operate the treatment works in accordance with the O&M Manual and shall make the O&M Manual available to Department personnel for review upon request. Any changes in the practices and procedures followed by the permittee shall be documented in the O&M Manual within 90 days of the effective date of the changes. Non-compliance with the O&M Manual shall be deemed a violation of the permit.

b. Notification Levels

Required by the VPDES Permit Regulation at 9VAC-31-200A for all manufacturing, commercial, mining, and silvacultural discharges. The permittee shall notify the Department as soon as they know or have reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - a) One hundred micrograms per liter;
 - b) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony;
 - c) Five times the maximum concentration value reported for that pollutant in the permit application; or
 - d) The level established by the Board.
2. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - a) Five hundred micrograms per liter;
 - b) One milligram per liter for antimony;
 - c) Ten times the maximum concentration value reported for that pollutant in the permit application; or
 - d) The level established by the Board.

c. Materials Handling/Storage. 9VAC25-31-50 A prohibits the discharge of any wastes into State waters unless authorized by permit. The Code of Virginia at §62.1-44.16 and §62.1-44.17 authorizes the Board to regulate the discharge of industrial waste or other waste.

d. Water Quality Criteria Reopener. The VPDES Permit Regulation at 9VAC25-31-220 D. requires establishment of effluent limitations to ensure attainment/maintenance of receiving stream water quality criteria. Should effluent monitoring indicate the need for any water quality-based effluent limitations, the permit may be modified or alternately revoked and reissued to impose such water quality-based limitations.

e. Chemical Treatment

The permittee shall notify the DEQ Northern Regional Office 90 days prior to use of any new wood treatment chemicals. Upon notification, the Regional Office shall determine if this activity warrants a modification of the permit.

- g. Handling and Storage of Treated Lumber. Treated lumber that is stored under roof shall be retained on the drip pad for at least 12 hours after treatment or until there is no visible drippage. Treated lumber that is to be stored uncovered shall be retained on the drip pad for at least 48 hours after treatment or until there is no visible drippage.

Within one year of this permit reissuance date, the permittee shall prepare and submit for approval, a treated lumber management plan that will serve to prevent or reduce, to the extent practicable, the contact of exposed treated lumber with precipitation. This plan shall include a log of all treated wood storage that includes the process used to treat the wood (including the volumes of chemicals used), the quantity of treated lumber stored, the storage duration, and the storage location. The log summary shall be retained on site for the duration of the permit term.

Once approved, this treated lumber management plan shall be incorporated into the O&M Manual and become an enforceable condition of this permit.

- h. Process Wastewater Pollutants. There shall be no discharge of process wastewater pollutants. Per 40 CFR Part 429 (Federal Effluent Limitation Guidelines for the Timber Products Processing Point Source Category) process wastewater specifically excludes material storage yard runoff (either raw material or processed wood storage).
- i. Holding Pond Discharge. The holding pond on site is used in the wood treatment operation. Discharge from this holding pond, the drip pads, and the sumps is not permitted except in the event of a 25-year, 24-hour storm event. When a pond discharge that enters state waters does occur, an oral report shall be provided to DEQ within 24 hours of the discharge event. Written record of notification, to include any monitoring results, shall be submitted to DEQ-NRO with the DMR due on the tenth of the following month of the discharge.
- j. Holding Pond Liner Study
Due to the high incidence of copper monitoring endpoint exceedences in stormwater sampling (see **Attachment 12**) a Holding Pond Liner study is being required by this permit to ensure that the surface water resources are protected from possible holding pond seepage.

Within 90 days of the permit reissuance date, the permittee shall submit to DEQ-NRO for review and approval a Holding Pond Liner Study designed to evaluate the integrity of the holding pond liner that includes a chronological plan and study schedule. If the results of the Holding Pond Liner Study indicate leakage from the facility's holding pond is occurring, the permittee shall submit a Corrective Action Plan within 60 days of being notified by DEQ-NRO. The Corrective Action Plan shall set forth the steps to be taken by the permittee to ensure that the contamination source is eliminated or contained to ensure that any possible seepage from the holding pond to state waters does not occur. Based on the extent of the contamination found to be present, a risk analysis may be required. Once approved, this Corrective Action Plan shall become an enforceable part of this permit.
- k. Freeboard Requirements. The holding pond shall maintain a minimum of two feet of freeboard at all times except during a 25-year, 24-hour storm.
- l. Berm Maintenance. The holding pond berm shall be properly maintained through mowing, prohibiting tree and shrub establishment, and removing burrowing animals.
- m. Groundwater Monitoring. The groundwater is contaminated at this site and the EPA Superfund program will be evaluating the options to remediate and contain it. The permittee shall sample and report groundwater monitoring to DEQ-NRO as total metals (to represent the potential exposure to an individual who would drink the groundwater) in accordance with Part I.A. of this permit until the permittee seeks permission from DEQ to transfer groundwater monitoring and reporting to EPA's Superfund Program.
- n. Closure Plans: Facility closure shall be conducted in accordance with the Closure Plan on file. Any closure shall be coordinated with the DEQ Water Program Division, the DEQ Waste Division, and the EPA Superfund Program. Any changes in the practices and procedures for facility closure shall be documented in the Closure Plan within 90 days of the effective date of the changes
- o. TMDL Reopener: This special condition is to allow the permit to reopened if necessary to bring it in compliance with any applicable TMDL that may be developed and approved for the receiving stream.

- 23. Permit Section Part II:** Required by VPDES Regulation 9VAC25-31-190, Part II of the permit contains standard conditions that appear in all VPDES Permits. In general, these standard conditions address the responsibilities of the permittee, reporting requirements, testing procedures and records retention.
- 24. Permit Section Part III.** Part III of the permit contains conditions and requirements for stormwater pollution prevention. The permittee will be required to review and modify, as warranted, to ensure that the current facility SWPPP complies with the requirements as set forth. In addition, specific instructions are included for the nutrient monitoring that is being required for non-significant dischargers located within the Chesapeake Bay watershed as permits are reissued and for the proposed Jonas Run Benthic TMDL (TN, TP, TSS). The reported data will be utilized to verify assumptions made during the development of the watershed implementation plan and the proposed Jonas Run Benthic TMDL.
- 25. Changes to the Permit from the Previously Issued Permit:**
- a. Special Conditions:
 - 1) A Water Quality Reopener Special Condition has been added.
 - 2) A Handling and Storage of Lumber Special Condition has been added.
 - 3) A Process Wastewater Special Condition has been added.
 - 4) A Holding Pond Discharge Special Condition has been added.
 - 5) A Holding Pond Liner Study Special Condition has been added.
 - 6) A Freeboard Requirements Special Condition has been added.
 - 7) A Berm Maintenance Special Condition has been added.
 - 8) A TMDL Special Condition has been added.
 - 9) A revised O&M Manual that reflects current operations must be submitted to DEQ.
 - b. Monitoring and Effluent Limitations:
 - 1) Groundwater monitoring for Chromium VI and Total Arsenic has been added.
 - 2) Groundwater monitoring for all metals shall be expressed as total metals.
 - 3) Stormwater monitoring for Chromium VI and Dissolved Arsenic has been added.
 - 4) Stormwater nutrient monitoring has been added.
 - 5) Stormwater monitoring for ammonia has been removed because the facility is no longer using ACQ-C².
 - 6) The acute criteria and hence, the monitoring end-point for copper has been revised.
 - 7) The Whole Effluent Toxicity Monitoring frequency has been changed to once per quarter.
 - 8) A requirement to collect metals, hardness, and toxicity testing at the same time has been added.
 - c. Other:
 - 1) The SWPPP must be submitted to DEQ for review.
 - 2) The O&M Manual must be submitted to DEQ for review.

26. Variances/Alternate Limits or Conditions: None

27. Public Notice Information:

First Public Notice Date:

Second Public Notice Date:

Public Notice Information is required by 9VAC25-31-280 B. All pertinent information is on file and may be inspected, and copied by contacting the: DEQ Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193, Telephone No. (703) 583-3837, anna.westernik@deq.virginia.gov. See **Attachment 13** for a copy of the public notice document.

Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer and of all persons represented by the commenter/requester, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the permit. Requests for public hearings shall state 1) the reason why a hearing is requested; 2) a brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit; and 3) specific references, where possible, to terms and conditions of the permit with suggested revisions. Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given. The public may request an electronic copy of the draft permit and fact sheet or review the draft permit and application at the DEQ Northern Regional Office by appointment.

28. Additional Comments:

- a. Previous Board Action: On January 8, 2003, a Consent Order was issued between the Virginia Waste Management Board and Culpeper Wood Preservers for the purpose of resolving certain alleged violations of the Virginia Hazardous Waste Management Act and the Virginia Hazardous Waste Management Regulations. The facility returned to compliance with the identified violations and paid the applicable fine in February 2003.
- b. Staff Comments: In January 1981, a spill occurred from the Culpeper Wood Preservers site when a containment wall of the stormwater holding pond breached and discharged approximately 100,000 gallons of water containing chromium, copper, and arsenic. Downstream surface water monitoring conducted at the site in February 1981 showed elevated concentrations of these contaminants.

On June 22, 1993, Culpeper Wood Preservers entered into an Order of Consent (AOC) with EPA. The purpose of the AOC was to initiate and complete a proper Remedial Investigation and Feasibility Study for the Culpeper Wood Preservers site. Establishment of a study was required to prevent, mitigate, or otherwise respond to or remedy the release or threatened release of hazardous substances, pollutants, or contaminants at or from the site consistent with the Risk Assessment performed by EPA.

Corrective measures taken included the following:

- 1) Construction of a lined holding pond designed to retain runoff from a 25-year storm event;
- 2) Installation of a drainage system to divert stormwater runoff from lumber storage to the holding pond;
- 3) Implementation of a groundwater and stormwater sampling program to include installation of wells;
- 4) Enlargement of the existing lumber drip pads to provide at least 3 days retention of all treated lumber. This items was completed in 1984, when sumps were also installed;
- 5) Construction of storage facilities; and
- 6) Installation of a double-walled chemical distribution system.

See **Attachment 14**; the June 22, 1993 AOC with EPA.

- c. Public Comment: No comments were received during the public notice.

ATTACHMENTS

Attachment 1	MSDS Information for Wood Treatment Chemicals
Attachment 2	Groundwater Monitoring Summary
Attachment 3	Schematic of Chemical Storage Area
Attachment 4	NPDES Permit Rating Worksheet
Attachment 5	Facility Schematic
Attachment 6	Culpeper East (DEQ #184B) Topographic Map
Attachment 7	February 2016 Site Visit Memorandum
Attachment 8	Planning Statement
Attachment 9	Water Quality Criteria and Wasteload Allocation Analysis
Attachment 10	Average Hardness for the Period of September 2010 through December 2015
Attachment 11	WET Testing Summary
Attachment 12	Copper Data Summary for the Period of September 2010 through December 2015
Attachment 13	Public Notice
Attachment 14	June 22, 1993 EPA Administrative Order of Consent



SAFETY DATA SHEET

1. Identification

Product identifier LifeWood Treated Wood

Other means of identification

SDS number 254-KPC

Recommended use Preservative Treated Wood for various exterior applications including above ground, ground contact and freshwater exposure.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name Koppers Performance Chemicals Inc.

Address 1016 Everee Inn Rd., Griffin, GA 30224

Telephone number 770-233-4200

Contact person Regulatory Manager, KPC Inc.

Emergency Telephone Number CHEMTREC 1-800-424-9300

E-mail KPCmgrsds@koppers.com

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Carcinogenicity Category 1A

OSHA defined hazards Combustible dust

Label elements



Signal word Danger

Hazard statement May cause cancer by inhalation. May form combustible dust concentrations in air.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Prevent dust accumulation to minimize explosion hazard. Ground/bond container and receiving equipment. Wear protective gloves/protective clothing/eye protection/face protection.

Response If exposed or concerned: Get medical advice/attention. In case of fire: Use CO2, foam or water spray for extinction.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Wood Dust	N/A	> 90

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The product contains: Copper carbonate (CAS # 12069-69-1) and Tebuconazole (CAS # 107534-96-3) below reportable limits.

Depending on the additives applied to the treating solution, this wood may also contain <1 % of mold inhibitors, <1% of a non-hazardous wax emulsion, and <% of a colorant.

4. First-aid measures

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately. Some species may cause allergic respiratory reactions with asthma-like symptoms in sensitized individuals.

Skin contact

Remove contaminated clothing. Wash skin thoroughly with soap and water for several minutes. Prolonged contact with treated wood and/or treated wood dust, especially when freshly treated at the plant, may cause irritation to the skin. Abrasive handling or rubbing of the treated wood may increase skin irritation. Some wood species, regardless of treatment, may cause dermatitis or allergic skin reactions in sensitized individuals. In case of rashes, wounds or other skin disorders: Seek medical attention and bring along these instructions.

Eye contact

Do not rub eye. Immediately flush eye(s) with plenty of water. Remove any contact lenses and open eyelids wide apart. If irritation persists get medical attention.

Ingestion

Rinse mouth thoroughly if dust is ingested. Get medical attention if any discomfort continues.

Most important symptoms/effects, acute and delayed

Wood dust: May cause nasal dryness, irritation and mucostasis. Coughing, wheezing, sneezing, sinusitis and prolonged colds have also been reported. Depending on wood species may cause respiratory sensitization and/or irritation. Symptoms can include irritation, redness, scratching of the cornea, and tearing. May cause eczema-like skin disorders (dermatitis). Airborne treated or untreated wood dust may cause nose, throat, or lung irritation and other respiratory effects.

Indication of immediate medical attention and special treatment needed

Treat symptomatically.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Carbon dioxide, regular foam, dry chemical, water spray, or water fog.

Unsuitable extinguishing media

Water jet.

Specific hazards arising from the chemical

Depending on moisture content, and more importantly, particle diameter and airborne concentration, wood dust in a contained area may explode in the presence of an ignition source. Wood dust may similarly deflagrate (combustion without detonation like an explosion) if ignited in an open or loosely contained area. An airborne concentration of 40 grams (40,000 mg) of dust per cubic meter of air is often used as the LEL for wood dusts. Reference NFPA Standards- 654 and 664 for guidance.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Fire fighting equipment/instructions

Use water spray to cool fire exposed surfaces and to protect personnel.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Avoid generation and spreading of dust. Avoid spread of dust. Avoid inhalation of dust. Provide adequate ventilation. Wear appropriate personal protective equipment (See Section 8).

Methods and materials for containment and cleaning up

Sweep or vacuum up spillage and collect in suitable container for disposal. If not possible, gently moisten dust before it is collected with shovel, broom or the like. Containers must be labeled. For waste disposal, see Section 13 of the SDS.

Environmental precautions

For good industrial practice avoid release to the environment.

7. Handling and storage

Precautions for safe handling

Avoid prolonged or repeated breathing of dust. Avoid prolonged or repeated contact with skin. Wear appropriate personal protective equipment. Do not smoke. Change contaminated clothing. Do not burn preserved wood. Do not use preserved wood as Mulch. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Store in tightly closed original container in a dry, cool and well-ventilated place.

8. Exposure controls/personal protection

Occupational exposure limits

U.S. - OSHA

Components	Type	Value	Form
Wood Dust (CAS N/A)	PEL	5 mg/m ³ 15 mg/m ³	Respirable dust. Total fraction.

ACGIH

Components	Type	Value	Form
Wood Dust (CAS N/A)	TWA	1 mg/m ³	Inhalable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Wood Dust (CAS N/A)	TWA	1 mg/m ³	Dust.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Provide sufficient general/local exhaust ventilation to maintain inhalation exposures below current exposure limits and areas below explosive dust concentrations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields or safety goggles when sawing or cutting.

Skin protection

Hand protection

When handling wood, wear leather or fabric gloves.

Other

Wear normal work clothes and safety shoes.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use a NIOSH-approved respirator if there is a potential for exposure to dust exceeding exposure limits (See 29 CFR 1910.134, respiratory protection standard).

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

If wood dust contacts the skin, workers should wash the affected areas with soap and water. Clothing contaminated with wood dust should be removed, and provisions should be made for the safe removal of the chemical from the clothing. Persons laundering the clothes should be informed of the hazardous properties of wood dust. A worker who handles wood dust should thoroughly wash hands, forearms, and face with soap and water before eating, using tobacco products, using toilet facilities, applying cosmetics, or taking medication. Workers should not eat, drink, use tobacco products, apply cosmetics, or take medication in areas where wood dust is handled, or processed. Observe any medical surveillance requirements.

9. Physical and chemical properties

Appearance

Physical state

Solid.

Form

Solid. Chips. Dust.

Color

Not available.

Odor

No odor.

Odor threshold

Not applicable.

pH

Not applicable.

Melting point/freezing point

Not applicable.

Initial boiling point and boiling range

Not applicable.

Flash point

Not available.

Evaporation rate

Not applicable.

Flammability (solid, gas)

Combustible dust.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)

Not available.

Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not applicable.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not applicable.

10. Stability and reactivity

Reactivity	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	Hazardous reactions do not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Minimize dust generation and accumulation. Avoid contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Reducing agents.
Hazardous decomposition products	During combustion: Carbon oxides. Nitrogen oxides. Aliphatic aldehydes. Polycyclic aromatic hydrocarbons (PAHs).

11. Toxicological information

Information on likely routes of exposure

Inhalation	Wood dust, treated or untreated, is irritating to the nose, throat and lungs. Prolonged or repeated inhalation of wood dusts may cause respiratory irritation, recurrent bronchitis and prolonged colds. Some species may cause allergic respiratory reactions with asthma-like symptoms in sensitized individuals. Prolonged exposure to wood dusts by inhalation has been reported to be associated with nasal and paranasal cancer.
Skin contact	Handling may cause splinters. Prolonged contact with treated wood and/or treated wood dust, especially when freshly treated at the plant, may cause irritation to the skin. Abrasive handling or rubbing of the treated wood may increase skin irritation. Some wood species, regardless of treatment, may cause dermatitis or allergic skin reactions in sensitized individuals.
Eye contact	Dust may irritate the eyes.
Ingestion	Not likely, due to the form of the product. However, ingestion of dusts generated during working operations may cause nausea and vomiting. Certain species of wood and their dusts may contain natural toxins, which can have adverse effects in humans.
Symptoms related to the physical, chemical and toxicological characteristics	Wood dust: May cause nasal dryness, irritation and mucostasis. Coughing, wheezing, sneezing, sinusitis and prolonged colds have also been reported. Depending on wood species may cause respiratory sensitization and/or irritation. Symptoms can include irritation, redness, scratching of the cornea, and tearing. May cause eczema-like skin disorders (dermatitis). Airborne treated or untreated wood dust may cause nose, throat, or lung irritation and other respiratory effects.

Information on toxicological effects

Acute toxicity	Not expected to be acutely toxic.
Skin corrosion/irritation	Dust may irritate skin.
Serious eye damage/eye irritation	Dust may irritate the eyes.
Respiratory or skin sensitization	
Respiratory sensitization	Exposure to wood dusts can result in hypersensitivity,
Skin sensitization	Exposure to wood dust can result in the development of contact dermatitis. The primary irritant dermatitis resulting from skin contact with wood dusts consist of erythema, blistering, and sometimes erosion and secondary infections occur.

Germ cell mutagenicity	No component of this product present at levels greater than or equal to 0.1% is identified as a mutagen by OSHA.
Carcinogenicity	May cause cancer by inhalation. This classification is based on an increased incidence of nasal and paranasal cancers in people exposed to wood dusts.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Wood Dust (CAS N/A)	1 Carcinogenic to humans.
NTP Report on Carcinogens	
Wood Dust (CAS N/A)	Known To Be Human Carcinogen.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not listed.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not likely, due to the form of the product.
Chronic effects	Chronic exposure to wood dusts can result in pneumonitis, and coughing, wheezing, fever and the other signs and symptoms associated with chronic bronchitis.

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	
Mobility in soil	The product is insoluble in water.
Mobility in general	The product is not volatile but may be spread by dust-raising handling.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Dispose in accordance with applicable federal, state, and local regulations. Do not discharge into drains, water courses or onto the ground.
Local disposal regulations	Dispose of in accordance with local regulations.
Hazardous waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose in accordance with all applicable regulations. Do not discharge into drains, water courses or onto the ground.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	
Not regulated.	

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - No
	Delayed Hazard - Yes
	Fire Hazard - Yes
	Pressure Hazard - No
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical	Yes
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SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)	Not regulated.
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US state regulations**US. Massachusetts RTK - Substance List**

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Wood Dust (CAS N/A)

US. Pennsylvania Worker and Community Right-to-Know Law

Wood Dust (CAS N/A)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Wood Dust (CAS N/A)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	10-March-2015
Revision date	01-June-2015
Version #	02

Further information

HMIS® is a registered trade and service mark of the NPCA.
E - Safety Glasses, Gloves, Dust Respirator

PERCENTAGE OF ACTIVE INGREDIENTS PER RETENTION LEVEL:

0.06 pcf:

Copper carbonate expressed as Elemental Copper 0.15% - 0.25%

Tebuconazole 0.006% - 0.01%

0.15 pcf:

Copper carbonate expressed as Elemental Copper 0.35% - 0.65%

Tebuconazole 0.01% - 0.03%

0.23 pcf:

Copper carbonate expressed as Elemental Copper 0.55% - 0.95%

Tebuconazole 0.02% - 0.05%

HMIS® ratings

Health: 1*

Flammability: 1

Physical hazard: 0

Personal protection: E

NFPA ratings**Disclaimer**

Koppers Performance Chemicals Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.



SAFETY DATA SHEET

1. Identification

Product identifier Advance Guard Treated Wood

Other means of identification

SDS number 09-KPC

Recommended use Preservative Treated Wood for interior/weather protected exterior uses.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name Koppers Performance Chemicals Inc.

Address 1016 Everee Inn Rd., Griffin, GA 30224

Telephone number 770-233-4200

Contact person Regulatory Manager, KPC Inc.

Emergency Telephone Number CHEMTREC 1-800-424-9300

E-mail KPCmgrsds@koppers.com

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards

Carcinogenicity	Category 1
Reproductive toxicity	Category 1B

OSHA defined hazards Combustible dust

Label elements



Signal word Danger

Hazard statement May cause cancer by inhalation. May damage fertility or the unborn child by ingestion. May form combustible dust concentrations in air.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Prevent dust accumulation to minimize explosion hazard. Ground/bond container and receiving equipment. Wear protective gloves/protective clothing/eye protection/face protection.

Response

If exposed or concerned: Get medical advice/attention. In case of fire: Use CO2, foam or water spray for extinction.

Storage

Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Wood	N/A	90-98
Disodium Octaborate Tetrahydrate	12280-03-4	1.25-7.5

Composition comments

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Depending on the additives applied to the treating solution, this wood may also contain <1 % of mold inhibitors, <1% of a non-hazardous wax emulsion, and <% of a colorant.

4. First-aid measures**Inhalation**

Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if discomfort persists.

Skin contact

Flush skin with water.

Eye contact

Immediately flush eye(s) with plenty of water. Do not rub eye. If irritation persists get medical attention.

Ingestion

Get medical attention if any discomfort occurs.

Most important symptoms/effects, acute and delayed

Dust may cause eye, skin and respiratory tract irritation.

Indication of immediate medical attention and special treatment needed

Treat symptomatically.

General information

First aid personnel must be aware of own risk during rescue.

5. Fire-fighting measures**Suitable extinguishing media**

Carbon dioxide, regular foam, dry chemical, water spray, or water fog.

Unsuitable extinguishing media

None.

Specific hazards arising from the chemical

Wood dust is flammable and may explode in the presence of an ignition source. The presence of the borate wood preservative (known fire-retardant chemical) in treated wood dust may reduce the flammability hazard to some extent.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Fire fighting equipment/instructions

Use water spray to cool fire exposed surfaces and to protect personnel.

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation. Avoid inhalation of dust. Wear appropriate personal protective equipment (See Section 8).

Methods and materials for containment and cleaning up

Saw dust: Sweep or vacuum up spillage and collect in suitable container for disposal. Treated wood should not be burned in open fires or in stoves, fireplaces or residential boilers because toxic chemicals may be produced as part of the smoke and ashes. Treated wood from commercial or industrial use (e.g., construction sites) may be burned only in commercial or industrial incinerators or boilers in accordance with state and federal regulations.

Environmental precautions

For good industrial practice avoid release to the environment.

7. Handling and storage**Precautions for safe handling**

Avoid prolonged or repeated breathing of dust. Avoid prolonged or repeated contact with skin. Wear appropriate personal protective equipment. Change contaminated clothing. Sawing/machining treated wood should be performed outdoors or where adequate ventilation is present to avoid accumulations of treated wood dust. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

Conditions for safe storage, including any incompatibilities

Protect against physical damage. The material should be kept off the ground. Store in a cool, dry place. Keep away from heat, sparks and open flame.

8. Exposure controls/personal protection

Occupational exposure limits

U.S. - OSHA

Components	Type	Value	Form
Disodium Octaborate Tetrahydrate (CAS 12280-03-4)	PEL	5 mg/m3	Respirable dust.
Wood (CAS N/A)	PEL	15 mg/m3 5 mg/m3 15 mg/m3	Total Dust. Respirable dust. Total fraction.

ACGIH

Components	Type	Value	Form
Wood (CAS N/A)	TWA	1 mg/m3	Inhalable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Wood (CAS N/A)	TWA	1 mg/m3	Dust.

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Provide sufficient general/local exhaust ventilation to maintain inhalation exposures below current exposure limits and areas below explosive dust concentrations.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields or safety goggles when sawing or cutting.

Skin protection

Hand protection When handling wood, wear leather or fabric gloves.

Other Wear normal work clothes and safety shoes.

Respiratory protection Not necessary under normal conditions. Wear respirator if there is dust from machining operation.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations If preservatives/sawdust accumulate on clothes, launder before reuse. Wash work clothes separately from other household clothing.

9. Physical and chemical properties

Appearance

Physical state Solid.

Form Solid. Chips. Dust.

Color Not available.

Odor May have a slight scented odor.

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density	Not available.
Relative density	0.4 - 0.8 (Water = 1)
Solubility(ies)	
Solubility (water)	< 0.1
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Percent volatile	0 %
VOC (Weight %)	0 %

10. Stability and reactivity

Reactivity	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	Hazardous reactions do not occur.
Conditions to avoid	Open flame.
Incompatible materials	Oxidizing agents. Drying oils.
Hazardous decomposition products	During combustion: Carbon oxides. Aliphatic aldehydes. Resin acids. Polycyclic aromatic hydrocarbons (PAHs).

11. Toxicological information

Information on likely routes of exposure

Inhalation	Airborne treated or untreated wood dust may cause nose, throat, or lung irritation and other respiratory effects. Breathing excessive amounts of wood dust (primarily hardwood) has been associated with nasal cancer in some industries. Various species of untreated wood dust can elicit allergic respiratory response in sensitized persons.
Skin contact	Handling may cause splinters. Dust may irritate skin. Some wood species may cause allergic dermatitis in certain individuals.
Eye contact	Dust may irritate the eyes.
Ingestion	Not likely, due to the form of the product. However, ingestion of dusts generated during working operations may cause nausea and vomiting.

Symptoms related to the physical, chemical and toxicological characteristics	Dust may cause eye, skin and respiratory tract irritation.
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Information on toxicological effects

Acute toxicity	Not expected to be acutely toxic. Airborne treated or untreated wood dust may cause nose, throat, or lung irritation and other respiratory effects. Breathing excessive amounts of wood dust (primarily hardwood) has been associated with nasal cancer in some industries. Various species of untreated wood dust can elicit allergic respiratory response in sensitized persons. Epidemiological studies of workers in the woodtreating industry have shown no significant health effects due to occupational exposure to pentachlorophenol preservative. May be absorbed through the skin including mucous membranes and eye either by airborne mist, or more particularly, by direct contact.	
Skin corrosion/irritation	Dust may irritate skin.	
Serious eye damage/eye irritation	Dust may irritate the eyes.	
Respiratory or skin sensitization		
ACGIH Sensitization		
Wood (CAS N/A)	Dermal sensitization	Respiratory sensitization
Respiratory sensitization	May cause inhalation hypersensitivity (occupational asthma) in sensitive individuals.	
Skin sensitization	May cause allergic skin disorders in sensitive individuals.	
Germ cell mutagenicity	Not classified.	

Carcinogenicity

Untreated wood dust or saw dust: The International Agency for Research on Cancer (IARC) classifies untreated wood dust as a Group I human carcinogen. The classification is based primarily on IARC's evaluation of increased risk in the occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with occupational exposures of untreated wood dust. Epidemiological studies have been reported on carcinogenic risks of employment in the furniture-making industry, the carpentry industry, and the lumber and sawmill industry. IARC has reviewed these studies and reports that there is sufficient evidence that nasal carcinomas have been caused by employment in the furniture-making industry where the excess risk is associated with exposure to untreated wood dust or sawdust from hardwood species. IARC concluded that epidemiological data are not sufficient to make a definite assessment of the carcinogenic risk of employment as a carpenter or worker in a lumber mill or sawmill.

IARC Monographs. Overall Evaluation of Carcinogenicity

Wood (CAS N/A)

1 Carcinogenic to humans.

NTP Report on Carcinogens

Wood (CAS N/A)

Known To Be Human Carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity May damage fertility or the unborn child by ingestion.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not classified.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Mobility in soil The product is not mobile in soil.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Do not discharge into drains, water courses or onto the ground. Dispose in accordance with all applicable regulations.

Local disposal regulations Dispose of in accordance with local regulations.

Hazardous waste code Not regulated.

Waste from residues / unused products Do not discharge into drains, water courses or onto the ground. Dispose in accordance with all applicable regulations.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations

This product is hazardous according to OSHA 29 CFR 1910.1200.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - No
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Not Regulated

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Not regulated

US. New Jersey Worker and Community Right-to-Know Act

Disodium Octaborate Tetrahydrate (CAS 12280-03-4)
Wood (CAS N/A)

US. Pennsylvania Worker and Community Right-to-Know Law

Wood (CAS N/A)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Wood (CAS N/A)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	25-April-2015
Revision date	01-June-2015
Version #	02
HMIS® ratings	Health: 1* Flammability: 1 Physical hazard: 0

NFPA ratings



Disclaimer

Koppers Performance Chemicals Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

MW-5D	2013 (mg/L)	2013 Duplicate (mg/L)	2014 (mg/L)	2014 Duplicate (mg/L)	2015 (mg/L)	2015 Duplicate (mg/L)	Arsenic/Copper
Ammonia, as N	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Total Recoverable Copper	<0.0500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	
Total Recoverable Chromium	<0.0500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	
Total Recoverable Arsenic	<0.0500	<0.0500	<0.0100	<0.0100	0.012	0.0134	
Dissolved Copper	<0.0500	<0.0500	0.00648	<0.00500	0.00633	0.00661	
Dissolved Chromium	<0.0500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	
Dissolved Arsenic	<0.0500	<0.0500	<0.0100	<0.0100	0.0142	0.0117	
MW-6S	2013 (mg/L)	2013 Duplicate (mg/L)	2014 (mg/L)	2014 Duplicate (mg/L)	2015 (mg/L)	2015 Duplicate (mg/L)	Ammonia/Copper Chromium/Arsenic
Ammonia, as N	0.18	NA	<0.10	NA	<0.10	NA	
Total Recoverable Copper	0.148	NA	0.327	NA	0.164	NA	
Total Recoverable Chromium	0.186	NA	1.59	NA	0.593	NA	
Total Recoverable Arsenic	0.106	NA	0.31	NA	0.127	NA	
Dissolved Copper	<0.0500	NA	0.0109	NA	0.0139	NA	
Dissolved Chromium	0.0572	NA	0.0451	NA	0.0449	NA	
Dissolved Arsenic	0.0658	NA	0.834	NA	0.0231	NA	
MW-6I	2013 (mg/L)	2013 Duplicate (mg/L)	2014 (mg/L)	2014 Duplicate (mg/L)	2015 (mg/L)	2015 Duplicate (mg/L)	Copper/Arsenic
Ammonia, as N	<0.10	NA	<0.10	NA	<0.10	NA	
Total Recoverable Copper	<0.0500	NA	<0.00500	NA	<0.00500	NA	
Total Recoverable Chromium	<0.0500	NA	<0.00500	NA	<0.00500	NA	
Total Recoverable Arsenic	<0.0500	NA	<0.0100	NA	0.0137	NA	
Dissolved Copper	<0.0500	NA	0.00649	NA	<0.00500	NA	
Dissolved Chromium	<0.0500	NA	<0.00500	NA	<0.00500	NA	
Dissolved Arsenic	<0.0500	NA	<0.0100	NA	0.0192	NA	
MW-6D	2013 (mg/L)	2013 Duplicate (mg/L)	2014 (mg/L)	2014 Duplicate (mg/L)	2015 (mg/L)	2015 Duplicate (mg/L)	Copper/Arsenic
Ammonia, as N	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Total Recoverable Copper	<0.0500	<0.0500	<0.00500	<0.00500	0.00718	0.00531	
Total Recoverable Chromium	<0.0500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	
Total Recoverable Arsenic	<0.0500	<0.0500	<0.0100	<0.0100	<0.0100	0.0175	
Dissolved Copper	<0.0500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	
Dissolved Chromium	<0.0500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	
Dissolved Arsenic	<0.0500	<0.0500	<0.0100	<0.0100	<0.0100	0.0186	

Virginia Groundwater Standards Per 9VAC25-280-40 and 9VAC25-280-50 are as follows: Arsenic 0.05 mg/L; Chromium 0.05 mg/L; Copper 1 mg/L; Ammonia 0.025 mg/L

Exceeds the Virginia Groundwater Standards

**Summary of Culpeper Wood Preservers (VA0059145) Groundwater Monitoring Data
2013, 2014, 2015**

MW-II	2013 (mg/L)	2013 Duplicate (mg/L)	2014 (mg/L)	2014 Duplicate (mg/L)	2015 (mg/L)	2015 Duplicate (mg/L)	Copper/Chromium
Ammonia, as N	<0.10	NA	<0.10	NA	<0.10	NA	
Total Recoverable Copper	<0.0500	NA	0.0501	NA	0.0214	NA	
Total Recoverable Chromium	<0.0500	NA	0.00576	NA	0.00505	NA	
Total Recoverable Arsenic	<0.0500	NA	<0.0100	NA	<0.0100	NA	
Dissolved Copper	<0.0500	NA	0.0111	NA	0.0089	NA	
Dissolved Chromium	<0.0500	NA	<0.00500	NA	<0.00500	NA	
Dissolved Arsenic	<0.0500	NA	<0.0100	NA	<0.0100	NA	
MW-ID	2013 (mg/L)	2013 Duplicate (mg/L)	2014 (mg/L)	2014 Duplicate (mg/L)	2015 (mg/L)	2015 Duplicate (mg/L)	Copper/Chromium/Arsenic
Ammonia, as N	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Total Recoverable Copper	<0.0500	<0.0500	0.0649	0.0673	0.0493	0.0465	
Total Recoverable Chromium	<0.0500	<0.0500	0.0115	0.0131	0.00997	0.011	
Total Recoverable Arsenic	<0.0500	<0.0500	<0.0100	<0.0100	0.0116	0.0151	
Dissolved Copper	<0.0500	<0.0500	0.00735	0.00996	0.0136	0.0128	
Dissolved Chromium	<0.0500	<0.0500	<0.00500	<0.00500	<0.00500	<0.00500	
Dissolved Arsenic	<0.0500	<0.0500	<0.0100	<0.0100	0.0173	0.0183	
MW-IS	2013 (mg/L)	2013 Duplicate (mg/L)	2014 (mg/L)	2014 Duplicate (mg/L)	2015 (mg/L)	2015 Duplicate (mg/L)	No Detections
Ammonia, as N	<0.10	NA	NA	NA	NA	NA	
Total Recoverable Copper	<0.0500	NA	NA	NA	NA	NA	
Total Recoverable Chromium	<0.0500	NA	NA	NA	NA	NA	
Total Recoverable Arsenic	<0.0500	NA	NA	NA	NA	NA	
Dissolved Copper	<0.0500	NA	NA	NA	NA	NA	
Dissolved Chromium	<0.0500	NA	NA	NA	NA	NA	
Dissolved Arsenic	<0.0500	NA	NA	NA	NA	NA	
MW-5S	2013 (mg/L)	2013 Duplicate (mg/L)	2014 (mg/L)	2014 Duplicate (mg/L)	2015 (mg/L)	2015 Duplicate (mg/L)	Ammonia/Arsenic
Ammonia, as N	1.74	NA	1.94	NA	1.19	NA	
Total Recoverable Copper	<0.0500	NA	<0.00500	NA	<0.00500	NA	
Total Recoverable Chromium	<0.0500	NA	<0.00500	NA	<0.00500	NA	
Total Recoverable Arsenic	<0.0500	NA	0.0238	NA	0.031	NA	
Dissolved Copper	<0.0500	NA	<0.00500	NA	<0.00500	NA	
Dissolved Chromium	<0.0500	NA	<0.00500	NA	<0.00500	NA	
Dissolved Arsenic	<0.0500	NA	0.0218	NA	0.0225	NA	
MW-5I	2013 (mg/L)	2013 Duplicate (mg/L)	2014 (mg/L)	2014 Duplicate (mg/L)	2015 (mg/L)	2015 Duplicate (mg/L)	Ammonia/Copper
Ammonia, as N	<0.10	NA	0.1	NA	<0.10	NA	
Total Recoverable Copper	<0.0500	NA	0.0226	NA	0.0207	NA	
Total Recoverable Chromium	<0.0500	NA	<0.00500	NA	<0.00500	NA	
Total Recoverable Arsenic	<0.0500	NA	<0.0100	NA	<0.0100	NA	
Dissolved Copper	<0.0500	NA	<0.00500	NA	0.00627	NA	
Dissolved Chromium	<0.0500	NA	<0.00500	NA	<0.00500	NA	
Dissolved Arsenic	<0.0500	NA	<0.0100	NA	<0.0100	NA	

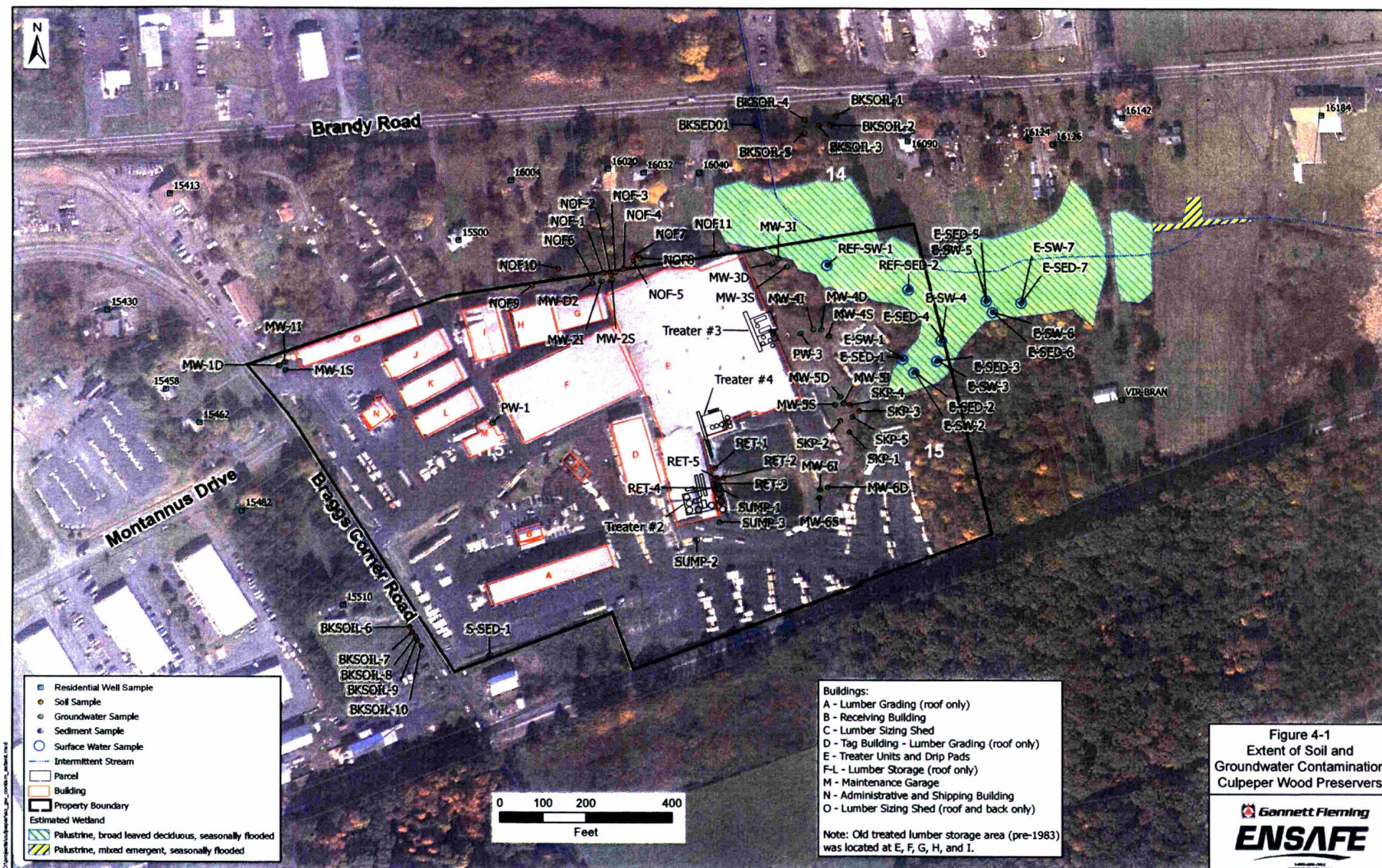
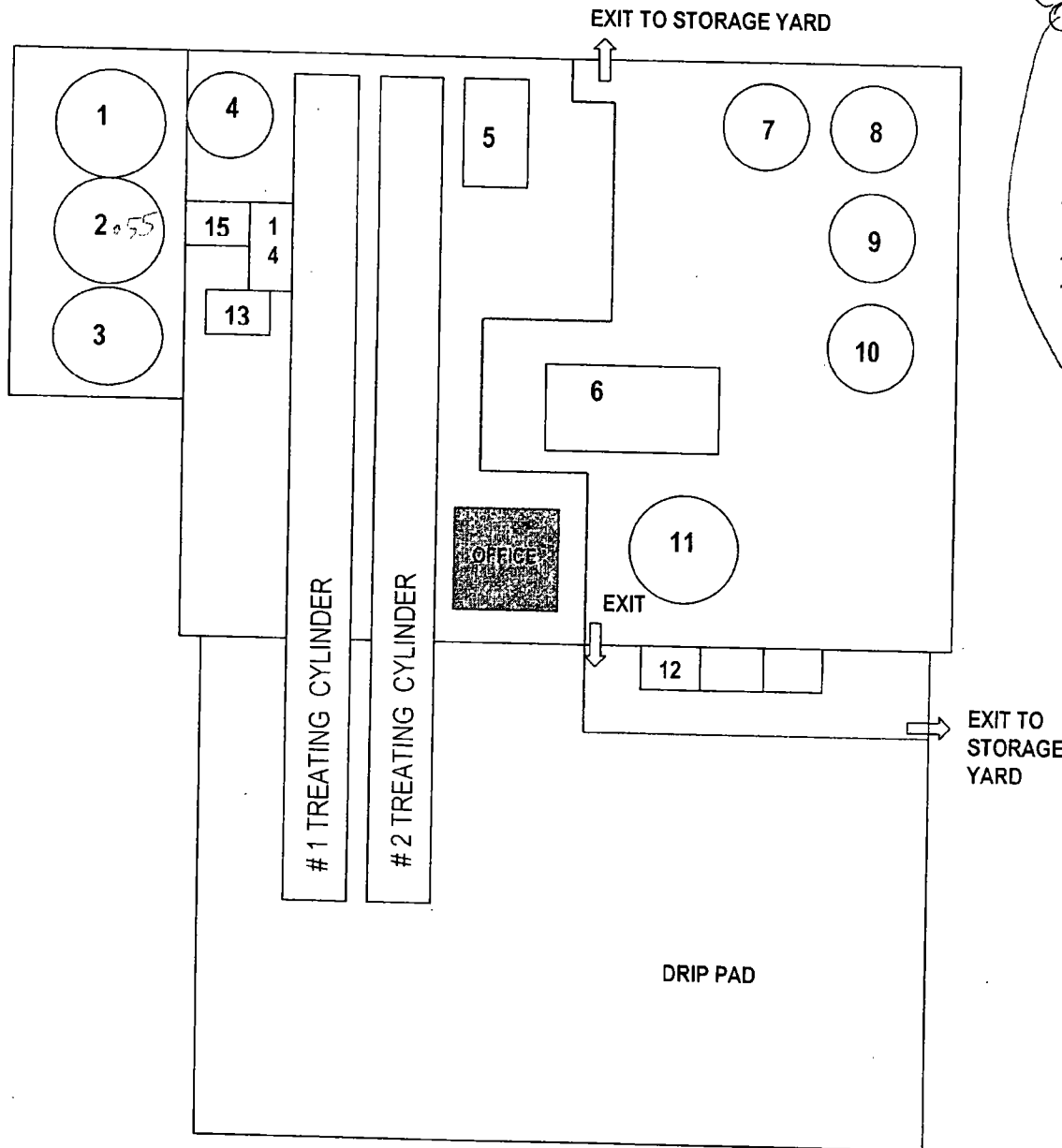


Figure 4-1
Extent of Soil and
Groundwater Contamination
Culpeper Wood Preservers

Gannett Fleming
ENSAFÉ
LUMBER-ONLY
WWW.ENSAFÉ.COM

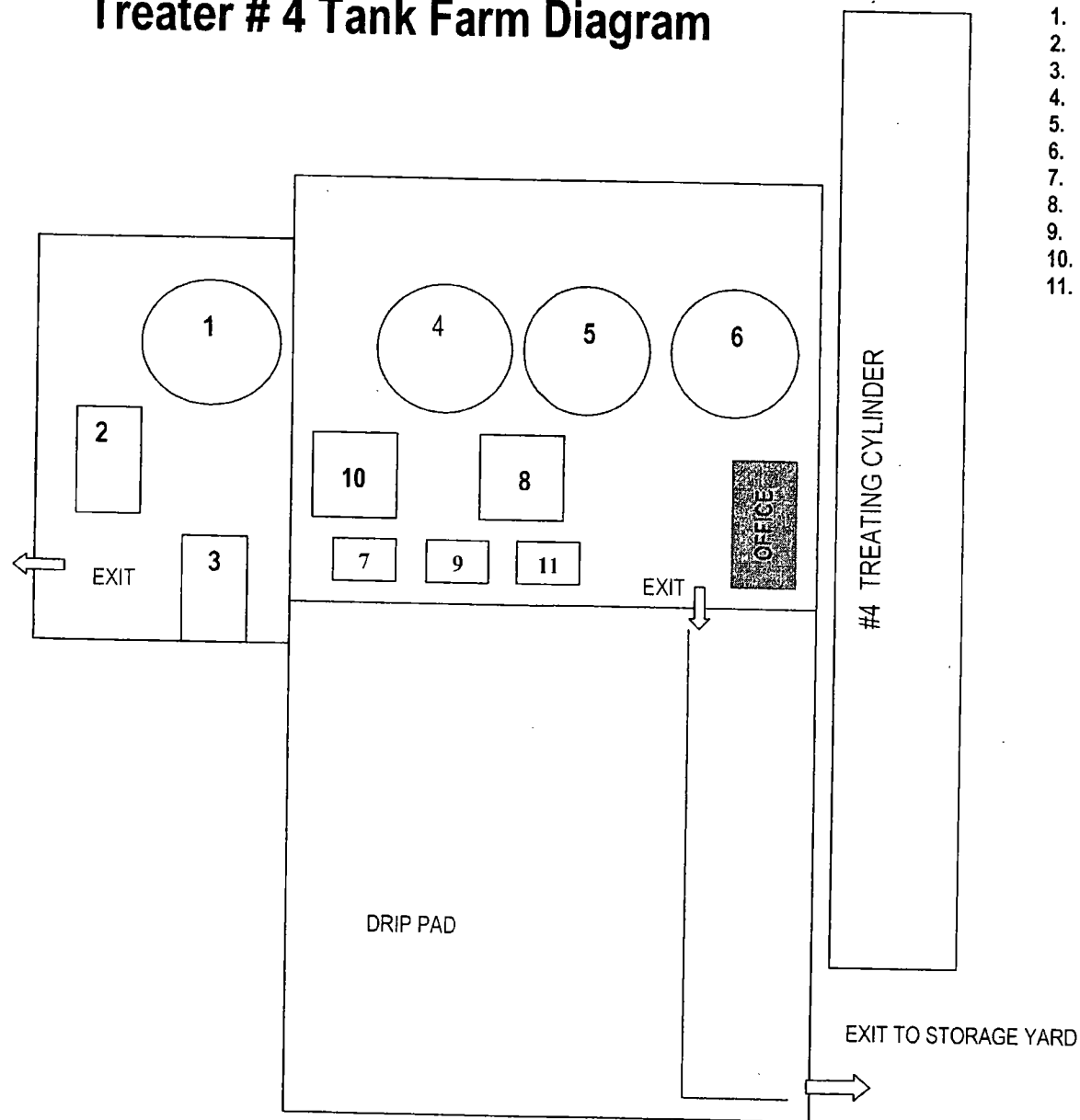
Culpeper Treater # 2 Tank Farm Diagram



1. 20,000 Gallon MP200-A (MCA) Concentrate Tank
2. 20,000 Gallon Out of Service *55% MCA Sol Tank*
3. 20,000 Gallon .25% MCA Solution Tank
4. 5,000 Gallon Out of Service
5. 10,000 Gallon Effluent Water Tank
6. 20,000 Gallon MP200-A (MCA) Concentrate Tank *25%*
7. 1,000 Gallon Out of Service
8. 6,000 Gallon Out of Service
9. 8,000 Gallon Out of Service
10. 8,500 Gallon Out of Service
11. 3,000 Gallon Combo Tank
12. 275 Gal Tote Clean Wood Micro
13. 275 Gal Tote Clean Wood 45 Plus / HE45 Mold Inhibitor
14. 275 Gal Tote Clean Wood AC / HE14 Mold Inhibitor
15. 300 Gal Tote Sodium Nitrite

Same as (3) 25% MCA Sol Tank

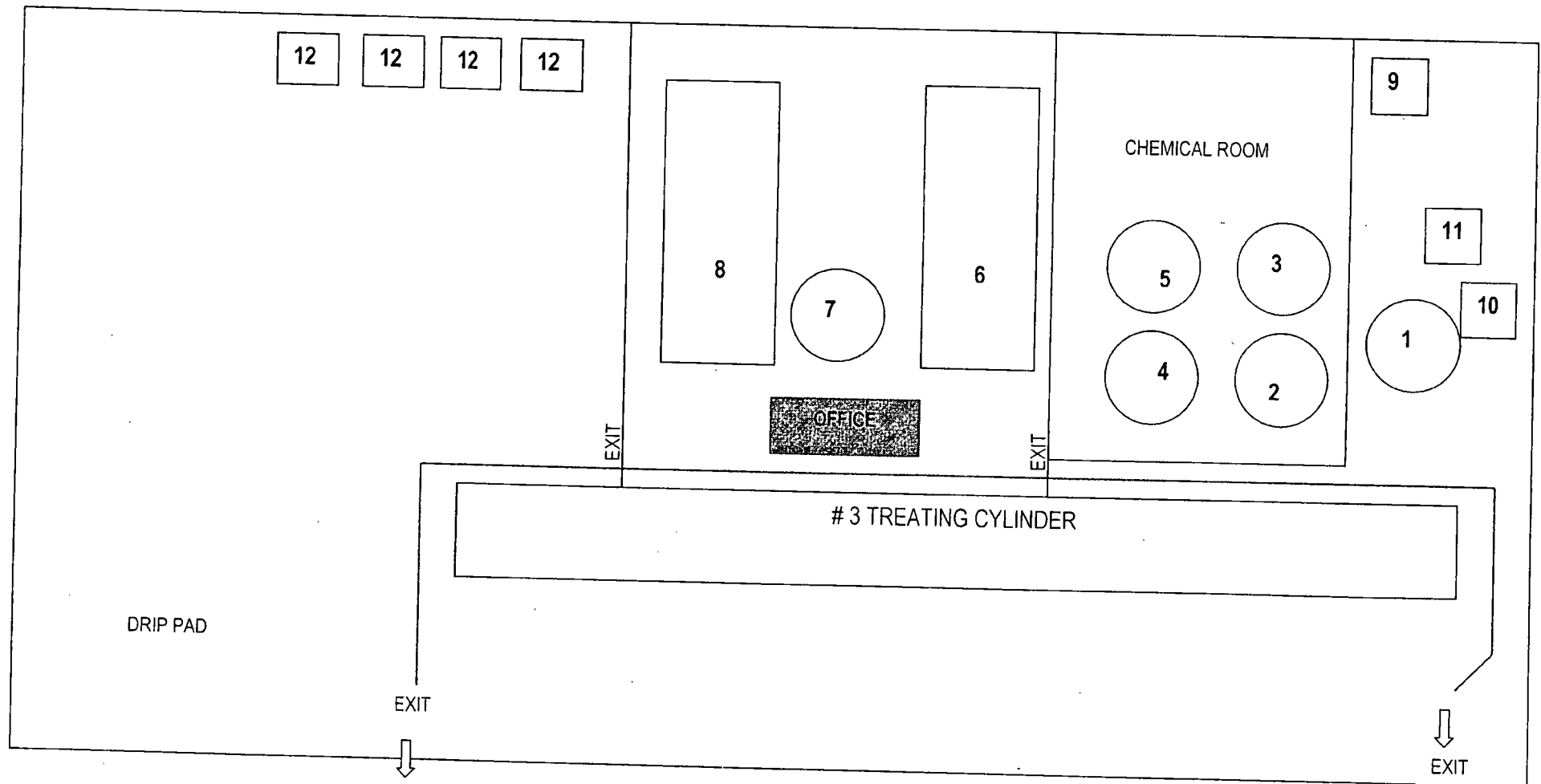
Culpeper Wood Preservers Treater # 4 Tank Farm Diagram



1. 15,000 Gallon Effluent Water Tank
2. 3,000 Gallon Effluent Water Tank
3. 3,000 Gallon 10% Borate Concentrate Tank
4. 15,000 Gallon MP200-C (MCA) Concentrate Tank
5. 20,000 Gallon 0.85% MCA Solution Tank
6. 20,000 Gallon 0.65% - 1.50% Borate Solution Tank
7. 275 Gal Tote Clean Wood AC / HE14 Mold Inhibitor
8. 275 Gal Tote Blue Wood Stain
9. 275 Gal Tote Clean Wood 45 Plus / HE45 Mold Inhibitor
10. 300 Gal Tote Sodium Nitrite
11. 265 Gal Tote MTZ

Culpeper Wood Preservers Treater # 3 Tank Farm Diagram

1. 18,000 Gallon 0.60% MCA Solution Tank
2. 3,500 Gallon Out of Service
- ③ ~~7,500 Gallon MP200-A (MCA) Concentrate Tank~~ Out of Service
4. 5,000 Gallon Out of Service
- ⑤ ~~5,000 Gallon Out of Service~~ 5,000 gal MP200-A (MCA) Concentrate Tank
6. 20,000 Gallon 0.25% MCA Solution Tank
7. 7,000 Gallon Combo Mix Tank
8. 20,000 Gallon Effluent Water Tank
9. 275 Gal Tote Clean Wood AC / HE14 Mold Inhibitor
10. 275 Gal Tote Clean Wood 45 Plus / HE45 Mold Inhibitor
11. 300 Gal Tote Sodium Nitrite
12. 10,000 LB. Dry Borate Powder



NPDES PERMIT RATING WORK SHEET

VPDES NO. : VA0059145

<input type="checkbox"/>	Regular Addition
<input type="checkbox"/>	Discretionary Addition
<input checked="" type="checkbox"/>	Score change, but no status Change
<input type="checkbox"/>	Deletion

Facility Name: Culpeper Wood Preservers

City / County: Culpeper

Receiving Water: Jonas Run, UT

Waterbody ID: VAN-E09R

Is this facility a steam electric power plant (sic =4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a cooling pond/lake)

2. A nuclear power Plant

3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rate

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

☐ YES; score is 700 (stop here)☒ NO; (continue)☐ Yes; score is 600 (stop here) ☒ NO; (continue)**FACTOR 1: Toxic Pollutant Potential**

PCS SIC Code: _____ Primary Sic Code: 2491 Other Sic Codes: _____

Industrial Subcategory Code: 000 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input checked="" type="checkbox"/> No process waste streams	0	0	<input type="checkbox"/> 3.	3	15	<input type="checkbox"/> 7.	7	35
<input type="checkbox"/> 1.	1	5	<input type="checkbox"/> 4.	4	20	<input type="checkbox"/> 8.	8	40
<input type="checkbox"/> 2.	2	10	<input type="checkbox"/> 5.	5	25	<input type="checkbox"/> 9.	9	45
			<input type="checkbox"/> 6.	6	30	<input type="checkbox"/> 10.	10	50

Code Number Checked: 0

Total Points Factor 1: 0

FACTOR 2: Flow/Stream Flow Volume (Complete either Section A or Section B; check only one)

Section A – Wastewater Flow Only considered

Wastewater Type (see Instructions)	Code	Points
Type I: Flow < 5 MGD	<input type="checkbox"/> 11	0
Flow 5 to 10 MGD	<input type="checkbox"/> 12	10
Flow > 10 to 50 MGD	<input type="checkbox"/> 13	20
Flow > 50 MGD	<input type="checkbox"/> 14	30
Type II: Flow < 1 MGD	<input type="checkbox"/> 21	10
Flow 1 to 5 MGD	<input type="checkbox"/> 22	20
Flow > 5 to 10 MGD	<input type="checkbox"/> 23	30
Flow > 10 MGD	<input type="checkbox"/> 24	50
Type III: Flow < 1 MGD	<input type="checkbox"/> 31	0
Flow 1 to 5 MGD	<input type="checkbox"/> 32	10
Flow > 5 to 10 MGD	<input type="checkbox"/> 33	20
Flow > 10 MGD	<input type="checkbox"/> 34	30

Section B – Wastewater and Stream Flow Considered

Wastewater Type (see Instructions)	Percent of Instream Wastewater Concentration at Receiving Stream Low Flow	Code	Points
Type I/III:	< 10 %	<input type="checkbox"/> 41	0
	10 % to < 50 %	<input type="checkbox"/> 42	10
	> 50 %	<input type="checkbox"/> 43	20
Type II:	< 10 %	<input type="checkbox"/> 51	0
	10 % to < 50 %	<input type="checkbox"/> 52	20
	> 50 %	<input checked="" type="checkbox"/> 53	30

Code Checked from Section A or B: 30

Total Points Factor 2: 30

NPDES PERMIT RATING WORK SHEET

FACTOR 3: Conventional Pollutants

(only when limited by the permit)

A. Oxygen Demanding Pollutants: (check one)

☐

BOD

☒

COD

☐

Other: _____

Permit Limits: (check one)

☒

< 100 lbs/day

☐

100 to 1000 lbs/day

☐

> 1000 to 3000 lbs/day

☐

> 3000 lbs/day

Code

Points

1

0

2

5

3

15

4

20

Code Number Checked: 1Points Scored: 0

B. Total Suspended Solids (TSS)

Permit Limits: (check one)

☒

< 100 lbs/day

☐

100 to 1000 lbs/day

☐

> 1000 to 5000 lbs/day

☐

> 5000 lbs/day

Code

Points

1

0

2

5

3

15

4

20

Code Number Checked: 1Points Scored: 0

C. Nitrogen Pollutants: (check one)

☒

Ammonia

☐

Other: _____

Permit Limits: (check one)

☒

Nitrogen Equivalent

< 300 lbs/day

☐

300 to 1000 lbs/day

☐

> 1000 to 3000 lbs/day

☐

> 3000 lbs/day

Code

Points

1

0

2

5

3

15

4

20

Code Number Checked: 1Points Scored: 0Total Points Factor 3: 0**FACTOR 4: Public Health Impact**

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this include any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above reference supply.

☒ YES; (If yes, check toxicity potential number below)

a) A public water supply raw water intake for Spotsylvania County's Motts Run Water Treatment Plant is located in the Rappahannock River at Latitude 38.30998 N and Longitude -77.53439 W. It is more than 25 miles downstream of the Outfall 001 discharge point.

b) A drinking water intake for the Town of Culpeper is located within a 5-mile radius of Outfall 001.

☐ NO; (If no, go to Factor 5)

Determine the Human Health potential from Appendix A. Use the same SIC doe and subcategory reference as in Factor 1. (Be sure to use the Human Health toxicity group column – check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No process waste streams	0	0	<input type="checkbox"/> 3.	3	0	<input type="checkbox"/> 7.	7	15
<input type="checkbox"/> 1.	1	0	<input type="checkbox"/> 4.	4	0	<input type="checkbox"/> 8.	8	20
<input type="checkbox"/> 2.	2	0	<input type="checkbox"/> 5.	5	5	<input type="checkbox"/> 9.	9	25
			<input type="checkbox"/> 6.	6	10	<input checked="" type="checkbox"/> 10.	10	30

Code Number Checked: 10Total Points Factor 4: 30

NPDES PERMIT RATING WORK SHEET

FACTOR 5: Water Quality Factors

- A. *Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-base federal effluent guidelines, or technology-base state effluent guidelines), or has a wasteload allocation been to the discharge*

	Code	Points
<input type="checkbox"/> YES	1	10
<input checked="" type="checkbox"/> NO	2	0

- B. *Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?*

	Code	Points
<input checked="" type="checkbox"/> YES	1	0
<input type="checkbox"/> NO	2	5

- C. *Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?*

	Code	Points
<input checked="" type="checkbox"/> YES	1	10
<input type="checkbox"/> NO	2	0

Code Number Checked: A 2 B 1 C 1
 Points Factor 5: A 0 + B 0 + C 10 = 10

FACTOR 6: Proximity to Near Coastal Waters

- A. Base Score: Enter flow code here (from factor 2) 53

Check appropriate facility HPRI code (from PCS):

HPRI#	Code	HPRI Score
<input type="checkbox"/> 1	1	20
<input type="checkbox"/> 2	2	0
<input type="checkbox"/> 3	3	30
<input checked="" type="checkbox"/> 4	4	0
<input type="checkbox"/> 5	5	20

HPRI code checked: 4

Base Score (HPRI Score): 0 X (Multiplication Factor) 0.60 = 0

Enter the multiplication factor that corresponds to the flow code: 0.60

Flow Code	Multiplication Factor
11, 31, or 41	0.00
12, 32, or 42	0.05
13, 33, or 43	0.10
14 or 34	0.15
21 or 51	0.10
22 or 52	0.30
23 or 53	0.60
24	1.00

- B. Additional Points – NEP Program

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

Code	Points
<input type="checkbox"/> 1	10
<input type="checkbox"/> 2	0

- C. Additional Points – Great Lakes Area of Concern

For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 area's of concern (see instructions)?

Code	Points
<input type="checkbox"/> 1	10
<input type="checkbox"/> 2	0

Code Number Checked: A 4 B N/A C N/A
 Points Factor 6: A 0 + B N/A + C N/A = 0

NPDES PERMIT RATING WORK SHEET

SCORE SUMMARY

<u>Factor</u>	<u>Description</u>	<u>Total Points</u>
1	Toxic Pollutant Potential	0
2	Flows / Streamflow Volume	30
3	Conventional Pollutants	0
4	Public Health Impacts	30
5	Water Quality Factors	10
6	Proximity to Near Coastal Waters	0
TOTAL (Factors 1 through 6)		70

S1. Is the total score equal to or greater than 80 ☐ YES; (Facility is a Major) ☒ NO

S2. If the answer to the above questions is no, would you like this facility to be discretionary major?

☒ NO

☐ YES; (Add 500 points to the above score and provide reason below:

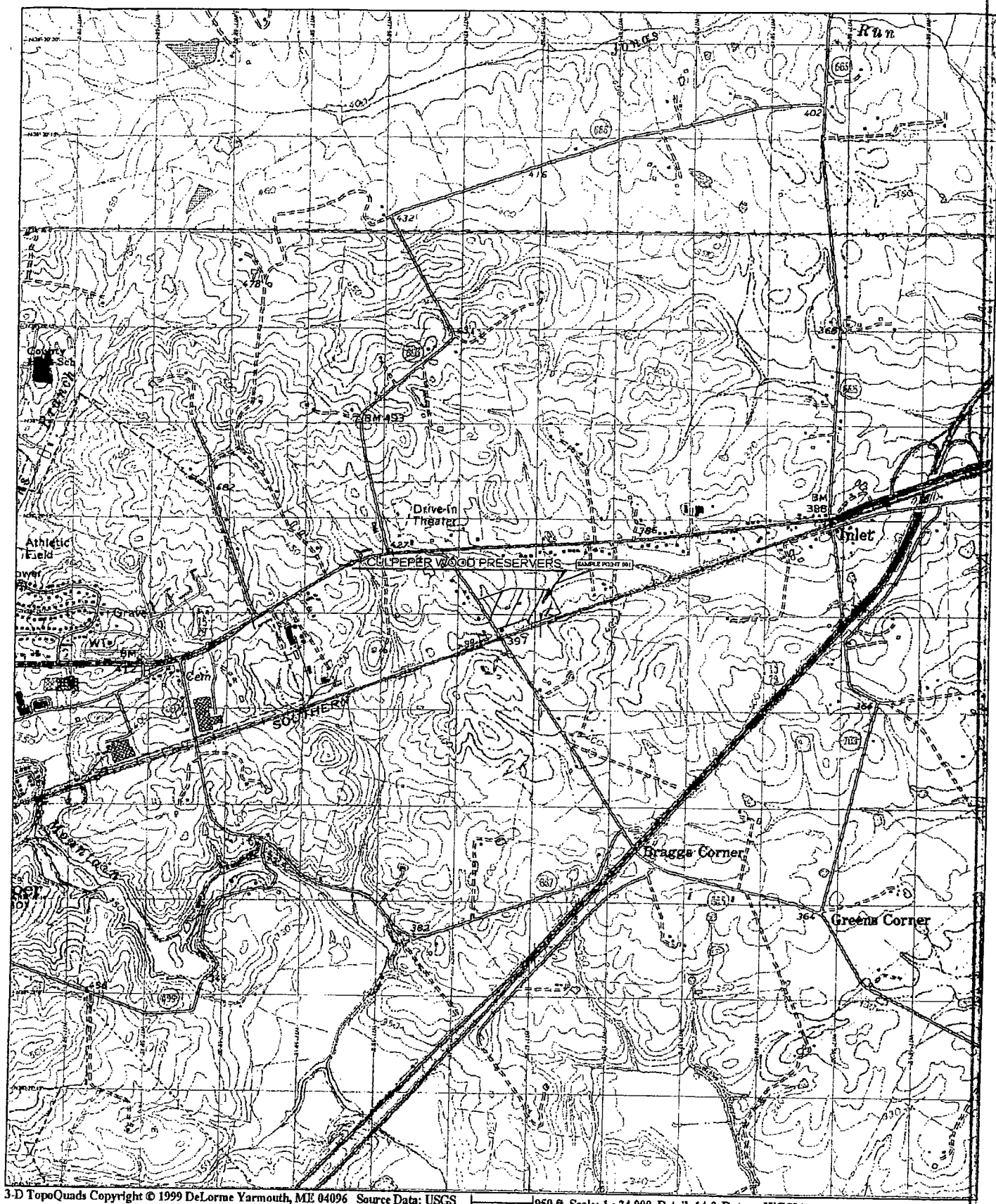
Reason: _____

NEW SCORE : 70

OLD SCORE : 35

Permit Reviewer's Name : Anna Westernik
Phone Number: (703) 583-3837
Date: January 21, 2016





CULPEPER EAST QUAD.

P5 OF 16



MEMORANDUM

Northern Regional Office

TO: File

FROM: Anna Westernnik, Water Permit Writer

DATE: March 2, 2016

SUBJECT: February 26, 2016 Site Visit to Culpeper Wood Preservers, Inc. (VA0059145)

I visited Culpeper Wood Preservers with Angie McGarvey, Lisa Janovsky, and Martin Robinson from DEQ on February 26, 2016. Industry representatives present were Tom Houston consultant and Jay Miller site Operations and Safety Manager from Culpeper Wood Preservers. The visit was conducted to view facility operations prior to permit reissuance. The DEQ Northern Region inspector, Lisa Janovsky, also conducted a Recon Inspection. The Culpeper Wood Preservers plant, located at 15487 Braggs Corner Road in Culpeper County, consists of untreated and treated wood storage areas, chemical units located on drip pads, a dual cell holding pond, and a chemical storage area.

Culpeper Wood Preservers is a facility that primarily treats white pine lumber using a 1% solution of Micronized Copper Azanol (MCA). A small amount of lumber is treated with a 1 to 2% solution of Borate (Disodium Octaborate Tetrahydrate). The active ingredients in MCA and Borate are copper carbonate, tebuconazole, and borate. Discharge from the facility is comprised of industrial stormwater only. Process water used for pressure treating lumber is obtained from non-potable production and monitoring wells on site and stored in a pond. The wastewater from the process is reused for treatment; none is discharged.

White pine lumber is received at the facility by either truck or rail. The wood is then inspected, sorted, and labeled for processing. Dimensional lumber is treated in one of three cylinders where the chemical solutions are introduced into the wood via pressure.

The chemical solution used in the wood treatment process is mixed in the onsite holding pond using water from the following wells: Production Wells 1 and 2, Monitoring Well 5D, and Monitoring Well 6D. Monitoring Well 3D is also used on occasion.

After treatment, the lumber is placed on an elevated covered drip pad for drying until drippage ceases (a 12 to 48 hour period). The three drip pad areas have secondary containment with impermeable plastic liners that are sloped towards a sump located under each treatment cylinder. Any chemical that may have dripped from the lumber is captured on the pad, filtered, and reused in the manufacturing process.

February 26, 2016 Site Visit to Culpeper Wood Preservers (VA0059145)

Page 2

March 2, 2016

The sump system is periodically cleaned to remove any sediment that has accumulated during the treatment process. The sediment is returned to the chemical supplier for treatment and disposal in accordance with the facility's RCRA Hazardous Waste Permit (VAR000004846). All processing occurs within a 20-acre covered facility. The majority of storage of the treated lumber (approximately 80%) is under roof until it is shipped to the customer. Most chemicals used on site are stored within a tank farm. This area has a closed loop system within secondary containment where all loading, mixing and recycling takes place.

Permitted discharge from the facility is solely stormwater runoff from the site to an unnamed tributary of Jonas Run via Outfall 001. The unnamed tributary is a swampy area consisting of a series of small, bisecting, slow moving streams. There was an extremely heavy rain event two days prior to the site visit. No aquatic life was observed in the streams. Of concern was the change in color of the stream on the property directly below the second cell of the pond. The stream's appearance (a cloudy white hue) reflected that of the second cell of the pond.

On the day of this visit, it was uncertain as to where monitoring for Outfall 001 was conducted because the area was not clearly designated. The permit reissuance will require the Stormwater Pollution Prevention Plan to designate the monitoring location using geographical coordinates.

To: Susan Mackert
From: Rebecca Shoemaker

Date: August 5, 2014
Subject: Planning Statement for Culpeper Wood Preservers – Culpeper
Permit Number: VA0059145

Information for Outfall 001:

Discharge Type: Industrial (Storm Water)
Discharge Flow: Variable
Receiving Stream: Jonas Run, UT
Latitude / Longitude: 38° 29' 5" / -77° 57' 25"
Rivermile: 3.25
Streamcode: 3-XDJ
Waterbody: VAN-E09R
Water Quality Standards: Class III, Section 4, no special standards
Drainage Area: 0.33 mi²

1. Please provide water quality monitoring information for the receiving stream segment. If there is not monitoring information for the receiving stream segment, please provide information on the nearest downstream monitoring station, including how far downstream the monitoring station is from the outfall.

This facility discharges to an unnamed tributary to Jonas Run (streamcode XDJ) that was assessed based on fish tissue/sediment monitoring station 3-XDJ000.14. The following is the water quality summary for this segment, as taken from the 2012 Integrated Report:

Class III, Section 4.

DEQ monitoring stations located in this segment:

- *fish tissue/sediment station 3-XDJ000.14*

The aquatic life and fish consumption uses are considered fully supporting. The recreation and wildlife uses were not assessed.

The nearest DEQ station with ambient monitoring data is located within a segment of Jonas Run (JOA) that begins approximately 3.25 miles downstream from Outfall 001. Ambient monitoring station 3-JOA000.80 is located at Route 663 (Stevensburg Road), approximately 4.40 miles downstream from Outfall 001. The following is the water quality summary for this segment of Jonas Run, as taken from the 2012 Integrated Report:

Class III, Section 4.

DEQ monitoring stations located in this segment of Jonas Run:

- *ambient monitoring station 3-JOA000.80, at Route 663 (Stevensburg Road)*
- *freshwater probabilistic monitoring station 3-JOA001.60, at Route 684*

E. coli monitoring finds a bacterial impairment, resulting in an impaired classification for the recreation use. This impairment is nested within the downstream completed bacteria TMDL for Mountain Run. Biological monitoring finds benthic macroinvertebrate impairments, resulting in an impaired classification for the aquatic life use. The wildlife use is considered fully supporting. The fish consumption use is listed as fully supporting based on water column metals data.

2. Does this facility discharge to a stream segment on the 303(d) list? If yes, please fill out Table A.

No.

3. Are there any downstream 303(d) listed impairments that are relevant to this discharge? If yes, please fill out Table B.

Yes.

Table B. Information on Downstream 303(d) Impairments and TMDLs

Waterbody Name	Impaired Use	Cause	Distance From Outfall	TMDL completed	WLA	Basis for WLA	TMDL Schedule
Impairment Information in the 2012 Integrated Report*							
Jonas Run	Recreation	<i>E. coli</i>	3.25 miles	Mountain Run Bacteria 4/27/2001	None (not expected to discharge pollutant)	---	---
	Aquatic Life	Benthic Macroinvertebrates		No	---	---	2024
Mountain Run	Fish Consumption	PCBs	5.20 miles	No	---	---	2018

*The Rappahannock River is listed with aquatic life and open-water aquatic life use impairments approximately 50 miles downstream from this facility. These impairments are listed in the 2014 Integrated Report, which is currently in draft format and is under review by EPA. It is expected that this segment of Rappahannock River will be listed for the aquatic life and open-water aquatic life use impairments in the final 2014 Integrated Report. There is a completed downstream TMDL for the aquatic life use impairment for the Chesapeake Bay. However, the Bay TMDL and the WLAs contained within the TMDL are not addressed in this planning statement.

4. Is there monitoring or other conditions that Planning/Assessment needs in the permit?

DEQ planning staff requests the facility perform semi-annual nutrient monitoring, specifically total phosphorus, nitrate, nitrite, ammonia, and TKN. Nutrient monitoring is requested of facilities that are located within a five mile distance upstream of a benthic impairment.

Mountain Run, which is located approximately 5.20 miles downstream from Outfall 001, is listed with a PCB impairment. In support of the PCB TMDL that is scheduled for development by 2018, this industrial facility is a candidate for PCB monitoring. Low-level PCB analysis uses EPA Method 1668, which is capable of detecting low-level concentrations for all 209 PCB congeners. DEQ staff has concluded that low-level PCB monitoring is not warranted for this facility as this facility is not expected to be a source of or discharge PCBs. Based upon this information, this facility will not be requested to monitor for low-level PCBs.

5. Fact Sheet Requirements – Please provide information regarding any drinking water intakes located within a 5 mile radius of the discharge point.

There is one drinking water intake for the Town of Culpeper located within a five mile radius of Outfall 001.

FRESHWATER WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: Culpeper Wood Preservers

Permit No.: VA0059145

Receiving Stream: Jonas Run, UT

Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information		Stream Flows		Mixing Information		Effluent Information	
Mean Hardness (as CaCO ₃) =	mg/L	1Q10 (Annual) =	0 MGD	Annual - 1Q10 Mix =	100 %	Mean Hardness (as CaCO ₃) =	48.6 mg/L
90% Temperature (Annual) =	deg C	7Q10 (Annual) =	0 MGD	- 7Q10 Mix =	100 %	90% Temp (Annual) =	deg C
90% Temperature (Wet season) =	deg C	30Q10 (Annual) =	0 MGD	- 30Q10 Mix =	100 %	90% Temp (Wet season) =	deg C
90% Maximum pH =	SU	1Q10 (Wet season) =	0 MGD	Wet Season - 1Q10 Mix =	100 %	90% Maximum pH =	SU
10% Maximum pH =	SU	30Q10 (Wet season) =	0 MGD	- 30Q10 Mix =	100 %	10% Maximum pH =	SU
Tier Designation (1 or 2) =	1	30Q5 =	0 MGD			Discharge Flow =	1.4 MGD
Public Water Supply (PWS) Y/N? =	n	Harmonic Mean =	0 MGD				
Trout Present Y/N? =	n						
Early Life Stages Present Y/N? =	y						

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Acenaphthene	0	--	--	na	9.9E+02	--	--	na	9.9E+02	--	--	--	--	--	--	--	--	--	--	na	9.9E+02
Acrolein	0	--	--	na	9.3E+00	--	--	na	9.3E+00	--	--	--	--	--	--	--	--	--	--	na	9.3E+00
Acrylonitrile ^c	0	--	--	na	2.5E+00	--	--	na	2.5E+00	--	--	--	--	--	--	--	--	--	--	na	2.5E+00
Aldrin ^c	0	3.0E+00	--	na	5.0E-04	3.0E+00	--	na	5.0E-04	--	--	--	--	--	--	--	--	3.0E+00	--	na	5.0E-04
Ammonia-N (mg/l) (Yearly)	0	5.84E+01	7.09E+00	na	--	5.84E+01	7.09E+00	na	--	--	--	--	--	--	--	--	--	5.84E+01	7.09E+00	na	--
Ammonia-N (mg/l) (High Flow)	0	5.84E+01	7.09E+00	na	--	5.84E+01	7.09E+00	na	--	--	--	--	--	--	--	--	--	5.84E+01	7.09E+00	na	--
Anthracene	0	--	--	na	4.0E+04	--	--	na	4.0E+04	--	--	--	--	--	--	--	--	--	--	na	4.0E+04
Antimony	0	--	--	na	6.4E+02	--	--	na	6.4E+02	--	--	--	--	--	--	--	--	--	--	na	6.4E+02
Arsenic	0	3.4E+02	1.5E+02	na	--	3.4E+02	1.5E+02	na	--	--	--	--	--	--	--	--	--	3.4E+02	1.5E+02	na	--
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Benzene ^c	0	--	--	na	5.1E+02	--	--	na	5.1E+02	--	--	--	--	--	--	--	--	--	--	na	5.1E+02
Benzidine ^c	0	--	--	na	2.0E-03	--	--	na	2.0E-03	--	--	--	--	--	--	--	--	--	--	na	2.0E-03
Benzo (a) anthracene ^c	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (b) fluoranthene ^c	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (k) fluoranthene ^c	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (a) pyrene ^c	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Bis(2-Chloroethyl) Ether ^c	0	--	--	na	5.3E+00	--	--	na	5.3E+00	--	--	--	--	--	--	--	--	--	--	na	5.3E+00
Bis(2-Chloroisopropyl) Ether	0	--	--	na	6.5E+04	--	--	na	6.5E+04	--	--	--	--	--	--	--	--	--	--	na	6.5E+04
Bis (2-Ethylhexyl) Phthalate ^c	0	--	--	na	2.2E+01	--	--	na	2.2E+01	--	--	--	--	--	--	--	--	--	--	na	2.2E+01
Bromoform ^c	0	--	--	na	1.4E+03	--	--	na	1.4E+03	--	--	--	--	--	--	--	--	--	--	na	1.4E+03
Butylbenzylphthalate	0	--	--	na	1.9E+03	--	--	na	1.9E+03	--	--	--	--	--	--	--	--	--	--	na	1.9E+03
Cadmium	0	1.7E+00	6.4E-01	na	--	1.7E+00	6.4E-01	na	--	--	--	--	--	--	--	--	--	1.7E+00	6.4E-01	na	--
Carbon Tetrachloride ^c	0	--	--	na	1.6E+01	--	--	na	1.6E+01	--	--	--	--	--	--	--	--	--	--	na	1.6E+01
Chlordane ^c	0	2.4E+00	4.3E-03	na	8.1E-03	2.4E+00	4.3E-03	na	8.1E-03	--	--	--	--	--	--	--	--	2.4E+00	4.3E-03	na	8.1E-03
Chlone	0	8.6E+05	2.3E+05	na	--	8.6E+05	2.3E+05	na	--	--	--	--	--	--	--	--	--	8.6E+05	2.3E+05	na	--
TRC	0	1.9E+01	1.1E+01	na	--	1.9E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.9E+01	1.1E+01	na	--
Chlorobenzene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	na	1.6E+03

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane ^C	0	--	--	na	1.3E+02	--	--	na	1.3E+02	--	--	--	--	--	--	--	--	--	--	na	1.3E+02
Chloroform	0	--	--	na	1.1E+04	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	--	--	na	1.1E+04
2-Chloronaphthalene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	na	1.6E+03
2-Chlorophenol	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	8.3E-02	4.1E-02	na	--	--	--	--	--	--	--	--	--	8.3E-02	4.1E-02	na	--
Chromium III	0	3.2E+02	4.1E+01	na	--	3.2E+02	4.1E+01	na	--	--	--	--	--	--	--	--	--	3.2E+02	4.1E+01	na	--
Chromium VI	0	1.6E+01	1.1E+01	na	--	1.6E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.6E+01	1.1E+01	na	--
Chromium, Total	0	--	--	1.0E+02	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Chrysene ^C	0	--	--	na	1.8E-02	--	--	na	1.8E-02	--	--	--	--	--	--	--	--	--	--	na	1.8E-02
Copper	0	6.8E+00	4.8E+00	na	--	6.8E+00	4.8E+00	na	--	--	--	--	--	--	--	--	--	6.8E+00	4.8E+00	na	--
Cyanide, Free	0	2.2E+01	5.2E+00	na	1.6E+04	2.2E+01	5.2E+00	na	1.6E+04	--	--	--	--	--	--	--	--	2.2E+01	5.2E+00	na	1.6E+04
DDD ^C	0	--	--	na	3.1E-03	--	--	na	3.1E-03	--	--	--	--	--	--	--	--	--	--	na	3.1E-03
DDE ^C	0	--	--	na	2.2E-03	--	--	na	2.2E-03	--	--	--	--	--	--	--	--	--	--	na	2.2E-03
DDT ^C	0	1.1E+00	1.0E-03	na	2.2E-03	1.1E+00	1.0E-03	na	2.2E-03	--	--	--	--	--	--	--	--	1.1E+00	1.0E-03	na	2.2E-03
Demeton	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Diazinon	0	1.7E-01	1.7E-01	na	--	1.7E-01	1.7E-01	na	--	--	--	--	--	--	--	--	--	1.7E-01	1.7E-01	na	--
Dibenz(a,h)anthracene ^C	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
1,2-Dichlorobenzene	0	--	--	na	1.3E+03	--	--	na	1.3E+03	--	--	--	--	--	--	--	--	--	--	na	1.3E+03
1,3-Dichlorobenzene	0	--	--	na	9.6E+02	--	--	na	9.6E+02	--	--	--	--	--	--	--	--	--	--	na	9.6E+02
1,4-Dichlorobenzene	0	--	--	na	1.9E+02	--	--	na	1.9E+02	--	--	--	--	--	--	--	--	--	--	na	1.9E+02
3,3-Dichlorobenzidine ^C	0	--	--	na	2.8E-01	--	--	na	2.8E-01	--	--	--	--	--	--	--	--	--	--	na	2.8E-01
Dichlorobromomethane ^C	0	--	--	na	1.7E+02	--	--	na	1.7E+02	--	--	--	--	--	--	--	--	--	--	na	1.7E+02
1,2-Dichloroethane ^C	0	--	--	na	3.7E+02	--	--	na	3.7E+02	--	--	--	--	--	--	--	--	--	--	na	3.7E+02
1,1-Dichloroethylene	0	--	--	na	7.1E+03	--	--	na	7.1E+03	--	--	--	--	--	--	--	--	--	--	na	7.1E+03
1,2-trans-dichloroethylene	0	--	--	na	1.0E+04	--	--	na	1.0E+04	--	--	--	--	--	--	--	--	--	--	na	1.0E+04
2,4-Dichlorophenol	0	--	--	na	2.9E+02	--	--	na	2.9E+02	--	--	--	--	--	--	--	--	--	--	na	2.9E+02
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,2-Dichloropropane ^C	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
1,3-Dichloropropene ^C	0	--	--	na	2.1E+02	--	--	na	2.1E+02	--	--	--	--	--	--	--	--	--	--	na	2.1E+02
Dieldrin ^C	0	2.4E-01	5.6E-02	na	5.4E-04	2.4E-01	5.6E-02	na	5.4E-04	--	--	--	--	--	--	--	--	2.4E-01	5.6E-02	na	5.4E-04
Diethyl Phthalate	0	--	--	na	4.4E+04	--	--	na	4.4E+04	--	--	--	--	--	--	--	--	--	--	na	4.4E+04
2,4-Dimethylphenol	0	--	--	na	8.5E+02	--	--	na	8.5E+02	--	--	--	--	--	--	--	--	--	--	na	8.5E+02
Dimethyl Phthalate	0	--	--	na	1.1E+06	--	--	na	1.1E+06	--	--	--	--	--	--	--	--	--	--	na	1.1E+06
Di-n-Butyl Phthalate	0	--	--	na	4.5E+03	--	--	na	4.5E+03	--	--	--	--	--	--	--	--	--	--	na	4.5E+03
2,4 Dinitrophenol	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
2-Methyl-4,6-Dinitrophenol	0	--	--	na	2.8E+02	--	--	na	2.8E+02	--	--	--	--	--	--	--	--	--	--	na	2.8E+02
2,4-Dinitrotoluene ^C	0	--	--	na	3.4E+01	--	--	na	3.4E+01	--	--	--	--	--	--	--	--	--	--	na	3.4E+01
Dioxin 2,3,7,8- tetrachlorodibenzo-p-dioxin	0	--	--	na	5.1E-08	--	--	na	5.1E-08	--	--	--	--	--	--	--	--	--	--	na	5.1E-08
1,2-Diphenylhydrazine ^C	0	--	--	na	2.0E+00	--	--	na	2.0E+00	--	--	--	--	--	--	--	--	--	--	na	2.0E+00
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	8.9E+01
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	8.9E+01
Alpha + Beta Endosulfan	0	2.2E-01	5.6E-02	--	--	2.2E-01	5.6E-02	--	--	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	--	--
Endosulfan Sulfate	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	--	--	na	8.9E+01
Endrin	0	8.6E-02	3.6E-02	na	6.0E-02	8.6E-02	3.6E-02	na	6.0E-02	--	--	--	--	--	--	--	--	8.6E-02	3.6E-02	na	6.0E-02
Endrin Aldehyde	0	--	--	na	3.0E-01	--	--	na	3.0E-01	--	--	--	--	--	--	--	--	--	--	na	3.0E-01

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	na	2.1E+03	--	--	na	2.1E+03	--	--	--	--	--	--	--	--	--	--	na	2.1E+03
Fluoranthene	0	--	--	na	1.4E+02	--	--	na	1.4E+02	--	--	--	--	--	--	--	--	--	--	na	1.4E+02
Fluorene	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Guthion	0	--	1.0E-02	na	--	--	1.0E-02	na	--	--	--	--	--	--	--	--	--	--	1.0E-02	na	--
Heptachlor ^C	0	5.2E-01	3.8E-03	na	7.9E-04	5.2E-01	3.8E-03	na	7.9E-04	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	7.9E-04
Heptachlor Epoxide ^C	0	5.2E-01	3.8E-03	na	3.9E-04	5.2E-01	3.8E-03	na	3.9E-04	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	3.9E-04
Hexachlorobenzene ^C	0	--	--	na	2.9E-03	--	--	na	2.9E-03	--	--	--	--	--	--	--	--	--	--	na	2.9E-03
Hexachlorobutadiene ^C	0	--	--	na	1.8E+02	--	--	na	1.8E+02	--	--	--	--	--	--	--	--	--	--	na	1.8E+02
Hexachlorocyclohexane Alpha-BHC ^C	0	--	--	na	4.9E-02	--	--	na	4.9E-02	--	--	--	--	--	--	--	--	--	--	na	4.9E-02
Hexachlorocyclohexane Beta-BHC ^C	0	--	--	na	1.7E-01	--	--	na	1.7E-01	--	--	--	--	--	--	--	--	--	--	na	1.7E-01
Hexachlorocyclohexane Gamma-BHC ^C (Lindane)	0	9.5E-01	na	na	1.8E+00	9.5E-01	--	na	1.8E+00	--	--	--	--	--	--	--	--	9.5E-01	--	na	1.8E+00
Hexachlorocyclopentadiene	0	--	--	na	1.1E+03	--	--	na	1.1E+03	--	--	--	--	--	--	--	--	--	--	na	1.1E+03
Hexachloroethane ^C	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	--	--	na	3.3E+01
Hydrogen Sulfide	0	--	2.0E+00	na	--	--	2.0E+00	na	--	--	--	--	--	--	--	--	--	--	2.0E+00	na	--
Indeno (1,2,3-cd) pyrene ^C	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Iron	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Isophorone ^C	0	--	--	na	9.6E+03	--	--	na	9.6E+03	--	--	--	--	--	--	--	--	--	--	na	9.6E+03
Kepone	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Lead	0	4.7E+01	5.4E+00	na	--	4.7E+01	5.4E+00	na	--	--	--	--	--	--	--	--	--	4.7E+01	5.4E+00	na	--
Malathion	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Mercury	0	1.4E+00	7.7E-01	--	--	1.4E+00	7.7E-01	--	--	--	--	--	--	--	--	--	--	1.4E+00	7.7E-01	--	--
Methyl Bromide	0	--	--	na	1.5E+03	--	--	na	1.5E+03	--	--	--	--	--	--	--	--	--	--	na	1.5E+03
Methylene Chloride ^C	0	--	--	na	5.9E+03	--	--	na	5.9E+03	--	--	--	--	--	--	--	--	--	--	na	5.9E+03
Methoxychlor	0	--	3.0E-02	na	--	--	3.0E-02	na	--	--	--	--	--	--	--	--	--	--	3.0E-02	na	--
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Nickel	0	9.9E+01	1.1E+01	na	4.6E+03	9.9E+01	1.1E+01	na	4.6E+03	--	--	--	--	--	--	--	--	9.9E+01	1.1E+01	na	4.6E+03
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrobenzene	0	--	--	na	6.9E+02	--	--	na	6.9E+02	--	--	--	--	--	--	--	--	--	--	na	6.9E+02
N-Nitrosodimethylamine ^C	0	--	--	na	3.0E+01	--	--	na	3.0E+01	--	--	--	--	--	--	--	--	--	--	na	3.0E+01
N-Nitrosodiphenylamine ^C	0	--	--	na	6.0E+01	--	--	na	6.0E+01	--	--	--	--	--	--	--	--	--	--	na	6.0E+01
N-Nitrosodi-n-propylamine ^C	0	--	--	na	5.1E+00	--	--	na	5.1E+00	--	--	--	--	--	--	--	--	--	--	na	5.1E+00
Nonylphenol	0	2.8E+01	6.6E+00	--	--	2.8E+01	6.6E+00	na	--	--	--	--	--	--	--	--	--	2.8E+01	6.6E+00	na	--
Parathion	0	6.5E-02	1.3E-02	na	--	6.5E-02	1.3E-02	na	--	--	--	--	--	--	--	--	--	6.5E-02	1.3E-02	na	--
PCB Total ^C	0	--	1.4E-02	na	6.4E-04	--	1.4E-02	na	6.4E-04	--	--	--	--	--	--	--	--	--	1.4E-02	na	6.4E-04
Pentachlorophenol ^C	0	7.7E-03	5.9E-03	na	3.0E+01	7.7E-03	5.9E-03	na	3.0E+01	--	--	--	--	--	--	--	--	7.7E-03	5.9E-03	na	3.0E+01
Phenol	0	--	--	na	8.6E+05	--	--	na	8.6E+05	--	--	--	--	--	--	--	--	--	--	na	8.6E+05
Pyrene	0	--	--	na	4.0E+03	--	--	na	4.0E+03	--	--	--	--	--	--	--	--	--	--	na	4.0E+03
Radionuclides Gross Alpha Activity (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Beta and Photon Activity (mrem/yr)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Radium 226 + 228 (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Uranium (ug/l)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Selenium, Total Recoverable	0	2.0E+01	5.0E+00	na	4.2E+03	2.0E+01	5.0E+00	na	4.2E+03	--	--	--	--	--	--	--	--	2.0E+01	5.0E+00	na	4.2E+03
Silver	0	1.0E+00	--	na	--	1.0E+00	--	na	--	--	--	--	--	--	--	--	--	1.0E+00	--	na	--
Sulfate	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,1,2,2-Tetrachloroethane ^C	0	--	--	na	4.0E+01	--	--	na	4.0E+01	--	--	--	--	--	--	--	--	--	--	na	4.0E+01
Tetrachloroethylene ^C	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	--	--	na	3.3E+01
Thallium	0	--	--	na	4.7E-01	--	--	na	4.7E-01	--	--	--	--	--	--	--	--	--	--	na	4.7E-01
Toluene	0	--	--	na	6.0E+03	--	--	na	6.0E+03	--	--	--	--	--	--	--	--	--	--	na	6.0E+03
Total dissolved solids	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Toxaphene ^C	0	7.3E-01	2.0E-04	na	2.8E-03	7.3E-01	2.0E-04	na	2.8E-03	--	--	--	--	--	--	--	--	7.3E-01	2.0E-04	na	2.8E-03
Tributyltin	0	4.6E-01	7.2E-02	na	--	4.6E-01	7.2E-02	na	--	--	--	--	--	--	--	--	--	4.6E-01	7.2E-02	na	--
1,2,4-Trichlorobenzene	0	--	--	na	7.0E+01	--	--	na	7.0E+01	--	--	--	--	--	--	--	--	--	--	na	7.0E+01
1,1,2-Trichloroethane ^C	0	--	--	na	1.6E+02	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	--	--	na	1.6E+02
Trichloroethylene ^C	0	--	--	na	3.0E+02	--	--	na	3.0E+02	--	--	--	--	--	--	--	--	--	--	na	3.0E+02
2,4,6-Trichlorophenol ^C	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	--	--	na	2.4E+01
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Vinyl Chloride ^C	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	--	--	na	2.4E+01
Zinc	0	6.4E+01	6.4E+01	na	2.6E+04	6.4E+01	6.4E+01	na	2.6E+04	--	--	--	--	--	--	--	--	6.4E+01	6.4E+01	na	2.6E+04

Notes:

- All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
- Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
- Metals measured as Dissolved, unless specified otherwise
- "C" indicates a carcinogenic parameter
- Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information
Antidegradation WLAs are based upon a complete mix.
- Antideg. Baseline = $(0.25(WQC - \text{background conc.}) + \text{background conc.})$ for acute and chronic
= $(0.1(WQC - \text{background conc.}) + \text{background conc.})$ for human health
- WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens and Harmonic Mean for Carcinogens. To apply mixing ratios from a model set the stream flow equal to (mixing ratio - 1), effluent flow equal to 1 and 100% mix.

Metal	Target Value (SSTV)	Note: do not use QL's lower than the minimum QL's provided in agency guidance
Antimony	6.4E+02	
Arsenic	9.0E+01	
Barium	na	
Cadmium	3.9E-01	
Chromium III	2.5E+01	
Chromium VI	6.4E+00	
Copper	2.7E+00	
Iron	na	
Lead	3.2E+00	
Manganese	na	
Mercury	4.6E-01	
Nickel	6.6E+00	
Selenium	3.0E+00	
Silver	4.0E-01	
Zinc	2.5E+01	

Culpeper Wood Preservers
Permit No.: VA0059145
Hardness Storm Water Data (Sep 2010 -- Dec 2015)

Due	Maximum Concentration (mg/L)
10-Oct-10	67.2
10-Jan-11	38.8
10-Apr-11	66.6
10-Jul-11	28.9
10-Oct-11	58.5
10-Jan-12	40.4
10-Apr-12	53.2
10-Jul-12	61.3
10-Oct-12	38.8
10-Jan-13	21.1
10-Apr-13	60
10-Jul-13	20.8
10-Oct-13	85.2
10-Jan-14	45.7
10-Apr-14	54.7
10-Jul-14	44.5
10-Oct-14	34.8
10-Jan-15	63.9
10-Apr-15	82.4
10-Jul-15	33.4
10-Oct-15	34.8
10-Jan-16	33.4
Average	48.6

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY

Northern Regional Office

13901 Crown Court

Woodbridge, VA 22193

(703) 583-3800

SUBJECT: TOXICS MANAGEMENT PROGRAM (TMP) DATA REVIEW
Culpeper Wood Preservers (VA0059145)
REVIEWER: Douglas Frasier
DATE: 31 March 2015

PREVIOUS REVIEW: 5 March 2014

DATA REVIEWED:

This review covers acute toxicity test conducted in February 2015 at Outfall 001.

DISCUSSION:

The results of the acute toxicity test along with the results of all previous toxicity tests conducted on the effluent samples collected from Outfall 001 are summarized in Table 1.

The acute toxicity of the effluent samples was determined with a 48-hour static acute toxicity test using *C. dubia* and *P. promelas*. These tests were performed using grab samples of stormwater.

Statistical analyses of the test results yielded a LC₅₀ of 29.7% effluent for *C. dubia* and 100% effluent for *P. promelas*.

CONCLUSION:

The acute toxicity tests are valid and the test results acceptable. The test results indicate that the effluent samples from Outfall 001 may exhibit acute toxicity to the test species.

BIOMONITORING RESULTS

Culpeper Wood Preservers (VA0059145)

Table 1
Summary of Toxicity Test Results for Outfall 001

TEST DATE	TEST TYPE/ORGANISM	LC ₅₀ (%)	% SURV	TU _a	LAB	REMARKS
06/09/94	Acute <i>C. dubia</i>	INV	-		ESS	1st test
06/09/94	Acute <i>P. promelas</i>	INV	-		ESS	
09/22/94	Acute <i>C. dubia</i>	88.5	35		ESS	retest
09/22/94	Acute <i>P. promelas</i>	>100	95		ESS	
07/27/94	Acute <i>C. dubia</i>	>100	100		ESS	2nd test
07/27/94	Acute <i>P. promelas</i>	>100	100		ESS	
05/26/95	Acute <i>C. dubia</i>	>100	60		ESS	3rd test
05/26/95	Acute <i>P. promelas</i>	>100	100		ESS	
06/23/95	Acute <i>C. dubia</i>	>100	100		ESS	4th test
06/23/95	Acute <i>P. promelas</i>	>100	95		ESS	
01/11/97	Acute <i>C. dubia</i>	>100	100		CBI	1 st annual
01/11/97	Acute <i>P. promelas</i>	>100	100		CBI	
07/03/97	Acute <i>C. dubia</i>	>100	100		CBI	2 nd annual
05/09/98	Acute <i>C. dubia</i>	>100	100		CBI	3 rd annual
07/22/99	Acute <i>C. dubia</i>	>100	100		CBI	4 th annual
Permit Reissued July 24, 2000						
07/21/00	Acute <i>C. dubia</i>	>100	100		CBI	1st annual
05/22/01	Acute <i>C. dubia</i>	>100	100		CBI	2nd annual
07/27/02	Acute <i>C. dubia</i>	>100	75		CBI	3rd annual
06/18/03	Acute <i>P. promelas</i>	>100	95		CBI	4th annual
07/27/04	Acute <i>C. dubia</i>	>100	100		CBI	Unacceptable for 5th annual
10/14/04	Acute <i>P. promelas</i>	>100	95		CBI	5th annual
05/21/05	Acute <i>C. dubia</i>	>100	100		CBI	6th annual
05/21/05	Acute <i>P. promelas</i>	>100	100		CBI	
Permit Reissued July 25, 2005						
04/18/06	Acute <i>P. promelas</i>	>100	100		CBI	1 st annual
05/19/07	Acute <i>C. dubia</i>	>100	100		CBI	2 nd annual
03/06/08	Acute <i>C. dubia</i>	>100	100		CBI	3 rd annual
04/15/09	Acute <i>P. promelas</i>	>100	100		CBI	4 th annual
Permit Reissued 25 July 2010						
07/13/10	Acute <i>C. dubia</i>	34.2	0	4	CBI	Extra test
07/13/10	Acute <i>P. promelas</i>	75.2	15	2		
02/26/11	Acute <i>C. dubia</i>	>100	100	1	CBI	1 st annual
02/26/11	Acute <i>P. promelas</i>	>100	90	1		
04/19/12	Acute <i>C. dubia</i>	32.7	0	4	CBI	2 nd annual
04/19/12	Acute <i>P. promelas</i>	73.2	20	2		
01/16/13	Acute <i>C. dubia</i>	>100	100	1	CBI	3 rd annual
01/16/13	Acute <i>P. promelas</i>	>100	100	1		

TEST DATE	TEST TYPE/ORGANISM	LC ₅₀ (%)	% SURV	TU _a	LAB	REMARKS
02/04/14	Acute <i>C. dubia</i>	17.7	0	16	CBI	4 th annual
02/04/14	Acute <i>P. promelas</i>	100	50	2		
02/03/15	Acute <i>C. dubia</i>	29.7	0	4	CBI	Extra test
02/03/15	Acute <i>P. promelas</i>	100	90	1		

FOOTNOTES:

A **bold** faced LC₅₀ or NOEC value indicates that the test failed the criteria.
LC50 based on observations at the end of 48 hours

ABBREVIATIONS:

S – Survival; G – Growth; R – Reproduction
% SURV – Percent survival in 100% effluent
INV – Invalid
CBI – Coastal Bioanalysts Incorporated
ESS – Environmental Systems Service

Culpeper Wood Preservers
Permit No.: VA0059145
Copper Storm Water Data (Sep 2010 -- Dec 2015)

Due	Maximum Concentration (mg/L)	Maximum Concentration (µg/L)
10-Oct-10	0.1	100
10-Jan-11	0.044	44
10-Apr-11	<0.0500	<50
10-Jul-11	0.061	61
10-Oct-11	0.013	13
10-Jan-12	0.039	39
10-Apr-12	0.014	14
10-Jul-12	0.138	14
10-Oct-12	0.098	98
10-Jan-13	<0.0500	<50
10-Apr-13	0.0239	24
10-Jul-13	0.0517	52
10-Oct-13	0.138	138
10-Jan-14	0.155	155
10-Apr-14	0.151	151
10-Jul-14	0.15	15
10-Oct-14	0.151	151
10-Jan-15	0.0718	73
10-Apr-15	0.128	128
10-Jul-15	0.289	289
10-Oct-15	0.125	125
10-Jan-16	0.0214	22

Monitoring Endpoint = 15 µg/L

Cu QL = 2.9 µg/L

	Invalid--QL >2.9 µg/L. These results cannot be used in determination of exceedance of the monitoring endpoint.
	Monitoring is less than or equal to the monitoring endpoint.

Between September 2010 and December 2015, this facility had a 73% monitoring endpoint exceedance for copper.

Public Notice – Environmental Permit

PURPOSE OF NOTICE: To seek public comment on a draft permit from the Department of Environmental Quality that will allow the release of stormwater associated with industrial activity into a water body in Culpeper County, Virginia.

PUBLIC COMMENT PERIOD: TBD to TBD

PERMIT NAME: Virginia Pollutant Discharge Elimination System Permit – Stormwater issued by DEQ, under the authority of the State Water Control Board

APPLICANT NAME, ADDRESS AND PERMIT NUMBER: Jefferson Home Builders, P.O. Box 1148, Culpeper, VA 22701, VA0059145

NAME AND ADDRESS OF FACILITY: Culpeper Wood Preservers, 15487 Braggs Corner Road, Culpeper, VA 22701

PROJECT DESCRIPTION: Culpeper Wood Preservers, Inc. has applied for a reissuance of a permit for the private Culpeper Wood Preservers, Inc. The applicant proposes to release industrial storm water from a wood treatment facility at a variable rate per rain event into a waterbody. The facility proposes to release the stormwater associated with industrial activity into an unnamed tributary of Jonas Run in Culpeper County in the Rappahannock River Watershed. A watershed is the land area drained by a river and its incoming streams. The permit will limit the pH concentration in stormwater to amounts that protect water quality. Additionally, the permit will monitor the following pollutants in the stormwater to protect water quality: flow, total recoverable chromium, total recoverable copper, total recoverable arsenic, total hardness, total Kjeldahl nitrogen, nitrate+nitrite as nitrogen, ammonia, total nitrogen, total phosphorus, suspended solids, and toxicity. Additionally, the permit will monitor the following groundwater constituents at the site: static water level, pH, conductivity, total chromium, total copper, and total arsenic.

HOW TO COMMENT AND/OR REQUEST A PUBLIC HEARING: DEQ accepts comments and requests for public hearing by hand-delivery, e-mail, or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. A public hearing may be held, including another comment period, if public response is significant, based on individual requests for a public hearing, and there are substantial, disputed issues relevant to the permit.

CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS AND ADDITIONAL INFORMATION: The public may review the draft permit and application at the DEQ-Northern Regional Office by appointment, or may request electronic copies of the draft permit and fact sheet.

Name: Anna T. Westernik

Address: DEQ-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193

Phone: (703) 583-3837 E-mail: anna.westernik@deq.virginia.gov



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

154413

CERTIFIED MAIL, RETURN RECEIPT

17 June 1993

Mr. Joseph R. Daniel
Jefferson Homebuilders, Inc.
Culpeper Wood Preservers
P.O. Box 1148
Culpeper, Virginia 22701

Dear Mr. Daniel:

This letter forwards the enclosed copy of the fully executed Administrative Order on Consent (AOC), Docket No. III-93-28-DC, in the matter of Culpeper Wood Preservers Superfund Site.

As provided in Section XXVI of the AOC, the effective date of the Order shall be three business days following the date of this letter (22 June 1993). From that date on, various submittals from you will be required as delineated within the AOC.

In accordance with Section X. E. of the AOC, please be aware that Black and Veatch Waste Science and Technology Corp. (preparers of the original RI/FS Work Plan) has been selected as the Environmental Protection Agency's contractor for overseeing and reviewing the conduct of the RI/FS.

If you have any associated questions regarding the RI/FS plans, please call me at 215 597-8485. Questions regarding the AOC should be directed to Ken Markowitz, Esq. at 215 597-3186.

Sincerely,

David J. Iacono, P.E.
Remedial Project Manager, 3HW41

Enclosure

cc: Kim Hummel, EPA 3HW41 (w/o enclosure)
Ken Markowitz, EPA 3RC21
Jim McDaniel, VDEQ
Lucy Rosbe, Esq., McSweeney, Burtch & Crump

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III

IN THE MATTER OF:

Culpeper Wood Preservers :

Jefferson Homebuilders, Inc. :
RESPONDENT :

Proceeding Under Sections 104 :
and 122 of the Comprehensive :
Environmental Response, :
Compensation and Liability Act :
of 1980 (42 U.S.C. §§ 9604 and :
9622), as amended by the :
Superfund Amendments and :
Reauthorization Act of 1986, :
Pub. L. No. 99-499, :
100 Stat. 1613 (1986) :

Docket No. III-93-28-DC

ADMINISTRATIVE ORDER ON CONSENT
FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III

IN THE MATTER OF:

Culpeper Wood Preservers Site

Jefferson Homebuilders, Inc.

RESPONDENT

Proceeding under Sections 104
and 122 of the Comprehensive
Environmental Response,
Compensation and Liability Act
of 1980 (42 U.S.C. §§ 9604 and
9622), as amended by the
Superfund Amendments and
Reauthorization Act of 1986,
Pub. L. No. 99-499,
100 Stat. 1613 (1986)

Docket No. III-93-28-DC

ADMINISTRATIVE ORDER ON CONSENT
FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY

The parties to this Administrative Order on Consent ("Consent Order" or "Order") Jefferson Homebuilders, Inc. ("Respondent") and the United States Environmental Protection Agency ("EPA"), have agreed to the entry of this Consent Order, and the Respondent agrees to undertake all actions required by the terms and conditions of this Consent Order. The Consent Order concerns the performance of, and reimbursement for all costs incurred by EPA in connection with, the Remedial Investigation and Feasibility Study ("RI/FS") for the Culpeper Wood Preservers Site ("Site") located near the Town of Culpeper, Culpeper County, Virginia. It is therefore ordered that:

I. JURISDICTION

- A. This Consent Order is issued pursuant to the authority vested in the President of the United States by Sections 104 and 122 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA"), 42 U.S.C. §§ 9604 and 9622, as amended and delegated to the Administrator of the EPA on January 23, 1987 by Executive Order 12580, 52 Fed. Reg. 2926, and further delegated to the Regional

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Administrators of EPA by EPA Delegation Nos. 14-14-A and 14-14-C (September 13, 1987).

- B. The Respondent consents to and will not contest EPA jurisdiction regarding this Consent Order.

II. STATEMENT OF PURPOSE

- A. In entering into this Consent Order, the mutual objective of EPA and Respondent is to complete properly and promptly a Remedial Investigation ("RI") and a Feasibility Study ("FS") or jointly ("RI/FS") for the Culpeper Wood Preservers Site, as defined hereinafter. The RI shall characterize the geology and hydrogeology of the Site, determine the nature and extent of the contamination at or from the Site, and characterize all ecological zones including terrestrial, riparian, wetlands, aquatic/marina, and transitional. EPA will prepare, for inclusion with the RI and FS reports, a determination of the nature and extent of the threat to the public health or welfare or the environment caused by the release or threatened release of any hazardous substances, pollutants or contaminants at or from the Site ("Risk Assessment"). EPA recognizes that Respondent has requested the opportunity to perform the Risk Assessment. If EPA's Risk Assessment policy changes, EPA will consider its decision not to allow the Respondent to perform the Risk Assessment at the Site and this Order could be amended as appropriate. The FS shall determine and evaluate (based on treatability testing, where appropriate) alternatives for remedial action to prevent, mitigate or otherwise respond to or remedy the release or threatened release of hazardous substances, pollutants, or contaminants at or from the Site consistent with the Risk Assessment performed by EPA (including any adverse impacts to human health or the environment that may result from the activities associated with remediation). The alternatives evaluated must include, but shall not be limited to, the range of alternatives described in the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), 40 C.F.R. Part 300, and remedial actions that utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. In evaluating the alternatives, the Respondent shall address the factors required to be taken into account by Section 121 of CERCLA, 42 U.S.C. § 9621.

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- B. Under this Consent Order, the Respondent agrees to implement fully the work plan for the RI/FS that is attached hereto as Attachment A ("Work Plan"), including the Quality Assurance Project Plan (QAPP) and Field Sampling Plan (FSP) that EPA and/or its contractors prepared, all of which are necessary to complete properly the RI/FS for the Site. The Respondent has had an opportunity to comment on the preparation of the final Work Plan. Respondent shall complete the RI following the procedures required by Section VIII below, Respondent shall complete an RI report and an FS Plan to EPA's satisfaction. EPA will finalize the Risk Assessment and the Respondent shall complete an FS based upon the EPA-approved RI report, FS Plan, and EPA's Risk Assessment.
- C. The activities conducted pursuant to this Consent Order are subject to approval by EPA and shall be consistent with the NCP, and shall be conducted in compliance with all applicable EPA guidance, policy and procedures. EPA intends to comply timely with Respondent's requests for guidance documents. Under this Order, the Respondent shall not be responsible for preparing a Risk Assessment as set forth in EPA's RI/FS guidance; however, Respondent is free to assess independently the risks at the Site.
- D. The activities conducted under this Consent Order shall provide all necessary information for the RI/FS and a Record of Decision ("ROD") that will document the selection of a remedial action for the Site that is consistent with CERCLA and the NCP.

III. EPA'S FINDINGS OF FACT

- A. The Culpeper Wood Preservers Site is located on Virginia Route 666 near the Town of Culpeper, Culpeper County, Virginia. The Town of Culpeper is located 2.3 miles west of the Site (Figure 1-1). The Site is approximately 20 acres in size and consists of process buildings, covered concrete drip pads, covered concrete or asphalt storage areas, and a holding pond divided by a small berm (Figure 1-2). Three sides of the Site are fenced. The fourth side is adjacent to Route 666. There are three entrances to the Site from Route 666 that do not have gates or other site access controls. The Site drains from northwest to southeast into a small unnamed stream. The unnamed stream is a tributary to Jonas Run, which is part of the Rappahannock River Basin.

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- B. Respondent incorporated on August 15, 1972 in the Commonwealth of Virginia and is the current owner of the Site.
- C. At the Site, Respondent operates a wood preserving facility where lumber is pressure treated using chromated copper arsenate (CCA).
- D. Respondent has owned and operated the Site since 1976. Prior to its purchase in 1976, the Site, including the wood treatment plant, was owned by Mr. Raymond Marshall. From the commencement of operations until October 1981, treated lumber was stored in open areas for drip drying and no runoff control measures were employed on-site.
- E. In January 1981, a spill occurred at the Site when a containment wall of a then-existing stormwater holding pond breached and discharged approximately 100,000 gallons of water containing chromium, copper, and arsenic ("1981 spill"). Surface water samples taken downstream from the Site in February 1981 in the unnamed tributary to Jonas Run showed elevated concentrations of these contaminants.
- F. Under agreements with the Virginia State Water Control Board (SWCB), in 1981, corrective measures were taken to prevent contaminants from leaving the Site. These corrective measures included:
 - 1) Construction of a holding pond having a permeability of 1×10^{-7} cm/s designed to retain the runoff from a 25-year storm event;
 - 2) Installation of a drainage system to divert rainfall run-off from the treated lumber storage yard to the holding pond;
 - 3) Installation of groundwater monitoring wells and the implementation of a groundwater and surface water sampling program;
 - 4) Enlargement of existing treated lumber drip pads to provide a minimum of 3 days retention of all treated lumber. In 1984, all drip pads were reconstructed using post-tension concrete. Sumps lined with a synthetic membrane (hypalon) also were incorporated in the construction of the drip pads;

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- 5) Construction of storage facilities to protect treated lumber from rainfall and prevent treated lumber from releasing treatment solution to the ground surface; and
- 6) Installation of a chemical distribution system using a 2" diameter distribution line encased in a 6" diameter pipe to prevent any future releases from that system.

In addition, Respondent conducted additional studies in the areas that may have been affected by the 1981 spill. These studies include: hydrogeologic investigations, geotechnical engineering investigations, groundwater treatment studies, and wood treatment system and storage yard modification studies.

- G. On October 8, 1986, Culpeper Wood Preservers was issued Industrial NPDES Permit No. VA0059145. In accordance with the permit, no process wastewater is allowed to be discharged from the Site and a groundwater and surface water monitoring program has been implemented. Parameters for sample analysis include chromium, copper, and arsenic. Results from sampling events from this program have been provided to EPA since 1986. Results of semi-annual bioassay toxicity test and quarterly biological surveys required under the permit have also been provided to EPA.
- H. Potential exposure pathways to the hazardous substances being released, or threatened to be released, from the Site are ingestion of groundwater and surface water, dermal (skin) contact with contaminants in soil and surface water, and incidental ingestion of contaminated soils.
- I. EPA proposed the Site for inclusion on the CERCLA National Priorities List (NPL) in October 1984. On September 29, 1989, the Site was placed on the final NPL.
- J. The Respondent did agree via facsimile (handwritten letter) dated October 10, 1990 to EPA to conduct the RI/FS in accordance with all EPA requirements and to pay all EPA costs. EPA, in a letter dated October 19, 1990, agreed to allow the Respondent the opportunity to perform the RI/FS in accordance with the Work Plan after EPA and/or its contractor completed the Work Plan.

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IV. EPA'S CONCLUSIONS OF LAW

- A. The Culpeper Wood Preservers Site is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).
- B. The Respondent is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21). The term "persons", as used throughout this Consent Order, is defined in accordance with the citation referenced above.
- C. "Hazardous substances", as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), including, but not limited to, chromium, copper, and arsenic, have been released at the Culpeper Wood Preservers Site and are currently present there.
- D. The presence of hazardous substances at the Site and the past, present and/or potential migration of hazardous substances at or from the Site constitutes an actual and/or threatened "release" as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).
- E. The Respondent is liable under Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1).

V. EPA'S DETERMINATIONS

Based on the Findings of Fact and Conclusions of Law set forth above, EPA has determined that:

- A. The actions required by this Consent Order are necessary to protect the public health and welfare and the environment.
- B. The Respondent is qualified to conduct the RI/FS within the meaning of Section 104(a) of CERCLA, 42 U.S.C. § 9604(a); and will carry out the work properly and promptly if the Respondent complies with all terms of this Consent Order.

VI. PARTIES BOUND

- A. This Consent Order shall apply to and be binding upon EPA, its officers, representatives, agents, and successors, and the Respondent, its authorized representatives, agents, successors, and assigns. All persons, contractors and consultants performing Work

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and acting under or for the Respondent shall be subject to the terms of the Consent Order. No change in ownership or corporate or partnership status of the Respondent or the Site will in any way alter the status of the Respondent or its responsibilities under this Consent Order.

- B. In the event of any change in ownership or control of Respondent, including the filing of a petition for bankruptcy, Respondent shall notify EPA, in writing, no later than five (5) business days after the change, of the nature of the change and the anticipated date of the change. Respondent shall provide a copy of this Consent Order to its successors before the proposed change becomes irrevocable.
- C. In the event of any change in ownership or control of the Site, Respondent shall provide EPA, in writing, at least thirty (30) days in advance of the change, with the name, address and telephone number of the proposed transferee in interest and the proposed date of the transfer, as well as the nature of the proposed transfer or change. Furthermore, Respondent shall provide EPA with a copy of any indemnification agreement that may be executed within five (5) days of its execution. Respondent shall provide a copy of this Consent Order to the transferee in interest prior to any agreement for transfer.
- D. The Respondent shall provide a copy of this Consent Order to all contractors, sub-contractors, laboratories, consultants, and supervisory personnel retained to conduct or monitor any portion of the work performed pursuant to this Consent Order within one (1) week of the effective date of this Consent Order or on their date of retention, whichever is later, and shall require all such contracts to comply with the terms of this Consent Order. Notwithstanding the terms of any contract, Respondent is responsible for complying with this Consent Order and for ensuring that its contractors, subcontractors, laboratories, consultants, supervisory personnel and agents comply with this Consent Order.
- E. Respondent is responsible for carrying out all actions required by this Consent Order.

VII. NOTICE TO THE COMMONWEALTH

EPA is notifying the Commonwealth of Virginia

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("Commonwealth") of the issuance of this Consent Order by providing the Commonwealth with a copy. In accordance with Section 121(f) of CERCLA, 42 U.S.C. § 9621(f), EPA has provided the Commonwealth with an opportunity to participate in the negotiations concerning this Consent Order.

VIII. WORK TO BE PERFORMED

- A. Respondent shall perform an RI/FS at the Site, in accordance with the requirements of CERCLA, the NCP, this Consent Order including any documents submitted as a requirement of this Consent Order including the Work Plan, as specified in (D) below, and all relevant guidance documents. EPA intends to respond timely with Respondent's requests for guidance documents. All activities required of the Respondent under this Consent Order and the Work Plan are referred to hereinafter as the "Work". The Work shall be consistent with the NCP, 40 C.F.R. Part 300, and with all relevant EPA guidance and regulations. All Work conducted by Respondent pursuant to this Consent Order shall be undertaken in accordance with all applicable local, state and federal laws, regulations, and all applicable and relevant and appropriate federal environmental requirements. The United States has determined that the activities conducted by the Respondent pursuant to the Consent Order, if approved by EPA, shall be considered consistent with the NCP.
- B. All response work performed pursuant to this Consent Order shall be under the direct supervision of qualified personnel accepted by EPA. EPA does not intend to unreasonably withhold such acceptance.
 1. Within fifteen (15) calendar days after the effective date of this Order, Respondent shall notify the EPA in writing of the identity and qualifications of the primary contractor(s), and/or supervisory personnel who shall carry out the Work. Respondent has a continuing obligation to notify EPA of selection of contractors, subcontractors or supervisory personnel, and to provide EPA with the identity and qualifications of contractors, subcontractors and supervisory personnel, and any addition or change, hired to do Work pursuant to this Order, within fifteen (15) days of such addition or change.
 2. EPA may, in its discretion, disapprove of the selection of any contractor, subcontractor and/or

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supervisory personnel EPA considers to be unqualified or otherwise unable to perform the Work or to continue to perform any part of the Work. In the event of a disapproval, Respondent shall notify EPA within thirty (30) days of receipt of such disapproval of the identity and qualifications of the person, contractor, subcontractor or supervisory personnel that will replace the one whose selection was disapproved.

3. In the event EPA subsequently disapproves of any replacement contractor, subcontractor or supervisory personnel, EPA reserves the right to conduct a complete RI/FS, in accordance with paragraphs (J) and (L), below, and to seek reimbursement from Respondent and/or other parties for such work.
 4. EPA will provide a notice of acceptance of the prime contractor to the Respondent. This shall not interfere with EPA's right to subsequently disapprove of such contractor.
- C. Respondent shall perform work in accordance with the terms, conditions, and schedule of the EPA-developed Work Plan described in Section II.B above. Upon request of Respondent, EPA will confer with the Respondent to discuss the details of the Work, to distribute relevant EPA guidance documents and policies regarding the conduct of an RI/FS, and to discuss the data that needs to be collected by the Respondent in order to allow EPA to complete a Risk Assessment for the Site. Any delays in the holding of such a meeting shall not excuse any delay in Respondent's obligation to comply with the schedule developed by the Respondent and incorporated into the Work Plan.
- D. The Work Plan is incorporated into this Consent Order and the terms and schedules in the Work Plan are requirements of this Order. Within thirty (30) days of the effective date of this Order, the Respondent shall submit to EPA an expeditious schedule (including specific dates) for completing the RI/FS in accordance with the Work Plan.
- E. Within thirty (30) days of the effective date of this Order, the Respondent shall submit to EPA a Health and Safety Plan (HASP) that shall be followed during completion of the RI/FS.
- F. Upon EPA's approval of the Respondent's schedule, the

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Respondent shall implement the Work Plan according to its approved terms and conditions, and shall prepare and submit the RI/FS reports for EPA's review as specified in the Work Plan. The Work shall include, but not be limited to, the following elements:

1. An RI Report that includes, but is not necessarily limited to: (a) a Site history (including past operations and releases), (b) a summary of previous investigations and cleanup actions, (c) a Site description (including physical setting, climate, surface water hydrology and quality, soils, hydrogeology and groundwater quality, fractures and groundwater movement, and ecology), (d) all chemical concentration data collected during the RI (including data collection methods, maps of sample locations, summary data tables, and a copy of chemical data in a computer-readable format), and (e) a summary of potentially exposed populations (including locations, current land uses, alternative future land uses, activity patterns, and subpopulations of potential concern).
2. Respondent will provide EPA with the appropriate data generated during the field investigation and other appropriate information needed to complete the Risk Assessment. EPA or its contractor shall prepare the Risk Assessment which shall identify and characterize actual and potential risks for human health and the environment. The Respondent shall utilize a Risk Assessment designated by EPA, which shall be prepared or approved by EPA, in order to complete the FS for the Site.
3. An FS Report that utilizes the Risk Assessment prepared by EPA and which develops an appropriate range of waste management options that are evaluated through the development and screening of alternatives. The report shall also contain a comparative analysis of the remedial alternatives against the nine evaluation criteria as described in the NCP and EPA's RI/FS guidance.
4. Treatability Studies: Respondent shall conduct treatability studies, except where Respondent can demonstrate to EPA's satisfaction that they are not needed. Major components of the treatability studies include a determination of the need for and scope of studies, the design of the studies, and the completion of the studies. Respondent

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shall provide EPA with the following deliverables:

a. Identification of Candidate Technologies

Memorandum. Respondent shall submit a technical memorandum within thirty (30) days of receipt of EPA's Risk Assessment to identify candidate remedial technologies, unless otherwise directed by EPA. If EPA disapproves of or requires revisions to the technical memorandum identifying candidate technologies, in whole or in part, Respondent shall amend and submit to EPA a revised technical memorandum identifying candidate technologies that are responsive to the directions in all EPA comments, within thirty (30) days of receiving EPA's comments.

b. Treatability Testing Work Plan. If EPA determines that treatability testing is required, Respondent shall submit a Treatability Testing Work Plan, within thirty (30) days of receiving EPA's request including, an expeditious schedule, a sampling and analysis plan and a health and safety plan. If EPA disapproves of or requires revisions to the Treatability Testing Work Plan, in whole or in part, Respondent shall amend and submit to EPA within thirty (30) days of receipt of EPA comments, a revised Treatability Testing Work Plan that is responsive to the directions in all EPA comments.

c. Treatability Study Evaluation Report. Respondent shall submit a Treatability Study Evaluation Report as provided in the Work Plan. If EPA disapproves of or requires revisions to the Treatability Study Evaluation Report, in whole or in part, Respondent shall amend and submit to EPA, within thirty (30) days of receipt of EPA's comments, a revised Treatability Study Evaluation Report that is responsive to the directions in all EPA comments.

G. Thirty (30) days after the effective date of this Order and each month thereafter, the Respondent shall provide EPA with a progress report for the preceding calendar month. At a minimum, these progress reports shall include:

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- 1) a description of the actions that have been taken toward achieving compliance with this Consent Order and the tasks set forth in the Work Plan;
 - 2) all results of sampling, tests, analytical data (whether or not it has undergone Quality Assurance/Quality Control ("QA/QC")) review and interpretations) and all other information received by the Respondent;
 - 3) a description of all data anticipated and activities scheduled for the next 30-day period; and,
 - 4) a description of any problems encountered, any actions taken or to be taken to remedy or mitigate such problems, and any changes to the schedule as a result of actions taken or to be taken.
- H.
1. Not less than thirty (30) days prior to submittal of the draft RI Report to EPA, Respondent and its contractor(s) shall meet with EPA to discuss the RI Report, including its findings, and the format for the data the Respondent will provide EPA for preparation of the Risk Assessment. The Respondent shall present EPA with a summary of the available documentation that supports the data at the meeting (except for data supplied by EPA or its contractors). Subject to paragraph (XIII)(E), below, Respondent shall supply additional documentation requested by EPA to verify or refute claims within 30 days of the meeting.
 2. Following receipt by EPA of the draft RI Report, EPA will provide Respondent with EPA's determination of the appropriate site-specific information for the Risk Assessment which may include, among other things, a list of contaminants of concern and their corresponding toxicity values, current and future site use scenarios, exposure assumptions, and exposure point concentrations.
 3. Within thirty (30) days of Respondent's receipt of the information provided by EPA pursuant to Section VIII.H.2 of this Consent Order, Respondent shall meet with EPA to discuss the status of Respondent's development and screening of remedial alternatives.

4. Subsequent to the meeting described in Section VIII.H.3 of this Consent Order, EPA will provide Respondent with a copy of EPA's Risk Assessment. Within thirty (30) calendar days of Respondent's receipt of this Risk Assessment, Respondent shall meet with EPA to discuss the draft FS, including the detailed analysis of remedial alternatives evaluated to achieve appropriate cleanup levels.
- I. Respondents shall submit to EPA three (3) copies of the draft RI and FS reports and computer discs containing the appropriate report files in a format compatible with EPA's word processing capabilities.
- J. EPA will review the draft RI and FS Reports submitted to it by Respondent. EPA will notify Respondent in writing of its approval or disapproval of these reports or of any part thereof. In the event of any disapproval, EPA shall specify the deficiencies in writing. However, the level of detail in the identified deficiency need not be so specific as to constitute a rewriting of all or part of the RI or FS Report.

Within thirty (30) days of receipt of notification of such draft RI or FS Report disapproval, the Respondent shall amend and submit to EPA, in a manner described in paragraph (VIII)(I), a final report that responds to and/or remedies the specified deficiencies.

If EPA disapproves of the final RI or FS Report or if the final RI or FS Report does not fully reflect EPA's directions for change, EPA will either: (1) allow Respondent an additional opportunity to submit an acceptable final RI or FS Report; or (2) complete all or part of such final RI or FS in lieu of Respondent, in which case EPA reserves the right to seek reimbursement for the costs thereof under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a) and/or any other appropriate relief. EPA will advise Respondent of its decision to proceed under (1) or (2), above. EPA's decision will be based on its sole discretion and shall not be subject to review. This will not interfere with any rights Respondent may have under law if EPA initiates a cost recovery action against Respondent.

- K. EPA and Respondent recognize that, while undertaking an RI/FS, certain unanticipated information and/or knowledge about the Site or technology or investigative methods may arise from public meetings, data collection, etc., that may require modification to the

Work Plan or to the field work. Minor modifications to the requirements of the Work Plan, that is, those that do not materially affect the nature, scope or timing of the Work to be performed, may thus be made by the Project Managers (as defined in Section (X) below). Such minor modifications must be made in conformance with Paragraph (XXV)(B), below.

- L. In the event that EPA disapproves of the selection or use of a proposed contractor, subcontractor, supervisory personnel, or the RI and FS Reports, under paragraphs (B), or (J), above, EPA reserves the right to conduct a complete RI/FS, or any portion thereof, in accordance with the requirements of CERCLA and the NCP, and to seek reimbursement of its costs pursuant to Section 107 of CERCLA, 42 U.S.C. §9607, and/or to seek any other appropriate relief.
- M. EPA reserves its right to disapprove of Work performed by the Respondent and reserves its right to request that Respondent perform response actions in addition to those required by, or as modified in the Work Plan, if it determines that such actions are necessary and that Respondent is qualified and can carry out such actions properly and promptly. In the event that Respondent declines to perform such additional and/or modified actions, EPA reserves the right to undertake such action(s) and to seek reimbursement of its costs and/or to seek any other appropriate relief.
- N. In addition, EPA reserves the right to undertake removal and/or remedial actions at any time that such actions are appropriate under the NCP and to seek reimbursement for any costs incurred or seek any other appropriate relief.
- O. A responsible official of Respondent shall sign the final RI and FS, and shall certify that the information contained in the RI and FS is true, accurate and complete. The term "responsible official" means as follows:
 - 1) For a corporation: a responsible corporate officer. A responsible corporate officer means:
 - (a) A president, secretary, treasurer or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or (b) the manager of one or more manufacturing, production, or operating facilities employing more than 250

persons or having gross annual sales or expenditures exceeding \$35 million (in 1987 dollars when the consumer Price Index was 345.3), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

- 2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

IX. PUBLIC COMMENT

EPA will make the proposed remedial action, and the supporting administrative record, including the RI and FS Reports and the Risk Assessment, available to the public for review and comment for, at a minimum, a thirty day period, pursuant to 40 C.F.R. § 300.430. Following the public review and comment period, EPA will notify the Respondent which remedial action alternative(s) is (are) selected for the Site.

X. DESIGNATED PROJECT MANAGERS

- A. On or before the effective date of this Consent Order, EPA and the Respondent shall each designate a Project Manager. EPA's Project Manager shall have the authorities specified in 40 C.F.R. §§ 300.120 and 300.430. Each Project Manager shall be responsible for overseeing the implementation of this Consent Order. To the maximum extent possible, communications between the Respondent and EPA, and all documents, including reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Consent Order, shall be directed to the Project Managers by controlled or certified mail, with copies to such other persons as EPA, the Commonwealth and Respondent may respectively designate. Short documents and correspondence, such as monthly reports, may be transmitted by facsimile, followed by the original sent by mail.
- B. EPA and the Respondent shall each have the right to change their respective Project Manager(s). Such change shall be accomplished by notifying the other party in writing at least ten (10) business days prior to the change.

- C. The EPA Project Manager shall have the authority to, inter alia, halt, modify, conduct, or direct any tasks required by this Consent Order and/or undertake any response actions or portions thereof, as set forth in 40 C.F.R. § 300.415, when conditions present or may present a threat to public health or welfare or the environment.
- D. The absence of the EPA Project Manager from the area under study pursuant to this Consent Order shall not be cause for the stoppage or delay of work.
- E. On or before the effective date of this Consent Order, EPA will arrange for a qualified person to assist it in overseeing and reviewing the conduct of the RI/FS as required by Section 104(a) of CERCLA, 42 U.S.C. § 9604(a) ("oversight representatives"). EPA will notify the Respondent of the identity of the oversight representatives.

XI. SITE ACCESS

- A. To the extent that property included in the area under study pursuant to this Consent Order is presently owned or controlled by parties other than Respondent, the Respondent shall use best efforts to obtain Site access agreements from the present owners as soon as possible but no later than forty-five (45) days from the effective date of the Order. Such agreements shall provide reasonable access as detailed in paragraph (C) of this Section, for performance of RI/FS activities for EPA, its authorized representatives, oversight representatives, representatives of the Commonwealth and the Respondent and its authorized representatives. In the event that a property owner refuses Respondent such access or access agreements are not obtained within the time designated above, whichever occurs first, the Respondent shall have ten (10) calendar days to notify EPA with documentation of all efforts undertaken by Respondent to obtain access and the reasons for Respondent failing to obtain such. EPA, solely in its discretion, may then take steps to obtain access.
- B. Best efforts as used in this section shall include, at a minimum, but shall not be limited to, a certified letter from Respondent to the present owners of such property requesting access agreements to permit the Respondent, the Commonwealth, and EPA and its authorized representatives access to such property,

reasonable conditions for access and/or the payment of reasonable fees.

- C. EPA and its authorized representatives, including its contractors used for the Work Plan preparation and oversight, and the Commonwealth, shall have the authority to enter and freely move about all property owned or controlled by Respondent subject to this Consent Order at all reasonable times, but to the extent practicable, during normal business hours for the purpose of, inter alia: inspecting records, operating logs, and contracts related to the Site; reviewing the progress of the Respondent in carrying out the terms of this Consent Order; conducting such tests as EPA deems necessary; using a camera, sound recording or other documentary type equipment; and verifying the data submitted to EPA by the Respondent. In addition, EPA and/or its authorized representatives shall have, for the purposes specified above, the authority to enter, at all reasonable times, but to the extent practicable, during normal business hours, all areas where records related to the performance of the RI/FS are retained. The Respondent shall permit such persons to inspect and copy all records, files, photographs, documents, and other writings, including all sampling and monitoring data, in any way pertaining to Work undertaken pursuant to this Consent Order. Confidentiality claims for any material copied may be asserted in accordance with Section XIII of this Order. Nothing herein shall be interpreted as limiting the inspection and information gathering authority of EPA under Federal law and/or the Commonwealth under Virginia law; however, EPA intends to make a reasonable effort to provide five (5) days notice before a Site visit.
- D. In the event that EPA takes over the Work pursuant to Sections VIII(J), (L) or (M), above, and/or XII(D), below, Respondent agrees to allow EPA and its authorized representatives and the Commonwealth access to the Site and to any portions of the Site under its ownership or control for the purpose of conducting the RI/FS, including, but not limited to, carrying out the activities specified in paragraph (C), above.
- E. If Respondent acquires title to or control over any portion of the Site to which it does not presently hold title or control, Respondent agrees that EPA and the Commonwealth shall have access rights to such property as specified in this Section.

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XII. QUALITY ASSURANCE

- A. While conducting sampling and analysis under the Work Plan, the Respondent shall implement quality assurance, quality control and chain of custody procedures in accordance with "Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA", OSWER Directive 9355.3-01 (1988) and technical direction received from EPA at the meeting(s) described in Section VIII(H), above, including but not limited to quality assurance, quality control and chain of custody procedures in accordance with the guidance provided in "EPA NEIC Policies and Procedures Manual: dated May 1978, revised November 1984, EPA 330/978-001-R; "Interim Guidelines and Specifications for Preparing Quality Assurance Project Plan", December 1980QAMS-005/80; "A Compendium of Superfund Field Operations Methods", December 1987, OSWER Directive 9355-0-14; and Data Quality Objectives for Remedial Response Activities", March 1987, OSWER Directive 9355.0-7B, while conducting all sample collection and analysis activities required by this Consent Order.
- B. The Respondent shall consult with EPA in planning for, and prior to, all sampling and analysis required by the Work Plan. Further, as set forth in Section VIII of this Order, Respondent shall not commence any additional sampling (except that which is already conducted under existing programs) without EPA approval.
- C. In order to provide quality assurance and maintain quality control regarding all samples collected pursuant to this Consent Order, the Respondent shall at a minimum:
1. Use a laboratory(s) that has a documented Quality Assurance Program that complies with EPA Guidance Document QAMS-005/80;
 2. Ensure that EPA personnel and EPA authorized representatives are allowed access during normal business hours to the laboratory(ies), records and personnel utilized by the Respondent for analysis of samples collected pursuant to this Consent Order.
 3. Utilize the Quality Assurance Project Plan ("QAPjP") prepared by EPA and/or its contractor for the sample collection and analysis to be conducted pursuant to this Consent Order. The

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purpose of the plan is to present, in detail, the data quality objectives, sample collection procedures, and data analysis processes and the procedures to ensure that the objectives are met. The guidance referenced in paragraph (A), above, shall be used as guidance in the utilization of the QAPjP; additional guidance may be provided by EPA upon request.

4. Ensure that the laboratory(ies) analyzing samples required by this Consent Order use the methods and submit deliverables delineated in the current "Statement of Work of the EPA Contract Lab Program." (CLP) (Current copies are available from the Environmental Services Division ("ESD") QA Section, Annapolis, Maryland at (301) 266-9180.) If any parameter to be analyzed for is not one of the parameters for which CLP methods are available, or with respect to non-CLP samples as provided in item (9), below, the laboratory shall use methods that are EPA-approved (and that are to be described in the QAPjP).
5. Except with respect to non-CLP samples as provided in item (9), below, ensure that the laboratory(s) analyzing samples pursuant to this Consent Order agrees to demonstrate its capability to perform analysis in compliance with Contract Lab Program requirements through the analysis of Performance Evaluation ("PE") samples prior to conducting any analysis. Analysis of PE samples may be waived if the laboratory has analyzed satisfactorily PE samples submitted by EPA or the appropriate state agency within the past six (6) months. Documentation of such PE sample analysis must be submitted to the EPA Project Manager for verification.
6. Conduct an audit of the laboratory(s) that will analyze samples from the Site at some point during the time the laboratory(s) is conducting analyses (to be specified in the QAPjP). The audit will be conducted to verify analytical capability. Auditors shall conduct laboratory audits according to procedures available from the ESD QA Section. Audit reports must be submitted to the EPA Project Manager within fifteen (15) days of completion of the audit. The Respondent must report serious deficiencies, including all those that adversely impact data quality, reliability or accuracy, and initiate corrective actions to correct such

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deficiencies within two (2) business days of the time the Respondents knew or should have known of the deficiency. Laboratories that are Superfund Contract Labs ("CLP" Labs) need not be audited.

7. Conduct at least one appropriate field audit (to be described in the QAPjP) during initial sampling activities to verify that field samplers are correctly following sampling procedures described in the quality assurance and/or sampling plans. A report of the field audit must be sent to the EPA Project Manager within fifteen (15) calendar days of completion of the audit. Respondent must report deficiencies and initiate corrective action to correct such deficiencies within two (2) business days from the time the Respondent knew or should have known of the deficiency.
 8. Provide data validation of analyses done by the laboratory(ies) (to be described in the QAPjP). This data validation shall determine data usability and shall be performed in accordance with the Functional Guidelines for Data Review (available from ESD QA Section) for data derived by CLP methods, or if another method is used, the data validation shall be performed in accordance with the QA/QC data validation criteria set forth in that method. For methods lacking QA/QC data validation protocols the Respondents must establish validation criteria such as those in Section 8 of the EPA Series Methods in 40 C.F.R. § 136. The appropriate quality assurance data validation summary reports shall be submitted along with sample data and summary sheets, to the EPA Project Manager at the time sample results are provided to EPA.
 9. Respondent shall be permitted to use non-CLP methods and procedures only as provided in Data Quality Objectives for Remedial Response Activities, OSWER Directive 9355.0-7B or as otherwise approved by the EPA Project Manager.
- D. In the event that the Respondent fails to use the QA/QC practices and procedures as outlined herein, EPA reserves the right to conduct a complete RI/FS or any portion thereof pursuant to its authority under CERCLA and the NCP and to seek reimbursement from any Respondent for the costs thereof and/or to seek any other appropriate relief.

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XIII. SAMPLING AND DATA/DOCUMENT AVAILABILITY

- A. The Respondent shall make available to EPA the results of all sampling and/or tests or other data generated by the Respondent, or on the Respondent's behalf, with respect to the implementation of this Consent Order, and shall submit all such results no later than the date that the next monthly progress report is due.
- B. At the request of EPA, the Respondent shall allow split or duplicate samples to be taken by EPA and/or its authorized representatives, of any samples collected by the Respondent pursuant to the Work Plan. The Respondent shall notify EPA not less than thirty (30) calendar days, or as otherwise determined by EPA, in advance of any such sample collection activity.
- C. EPA will determine the contents of the administrative record for the selection of the remedial action in accordance with Section 113(k)(1) of CERCLA. Respondent must submit to EPA all documents developed during the course of the RI/FS upon which selection of the response action may be based. Respondent shall, on or before the date of submission of the final RI/FS Report, submit to EPA all documents or information that Respondent wishes EPA to consider in the selection of a remedy and to include in the administrative record for the Site remedy that EPA will develop under Section 117 of CERCLA, 42 U.S.C. §9617.
- D. At the request of EPA, Respondent shall provide any of the raw data and/or field notes under its custody or control relating to samples taken at the Site, within thirty (30) calendar days of receipt of such request.
- E. All data, factual information and documents submitted by the Respondents pursuant to this Consent Order shall be subject to public inspection unless at the time of submission Respondent asserts a confidential business information or trade secret claim pursuant to applicable Federal law. Respondent may assert such a claim covering information or documentation requested by or provided under this Consent Order in the manner described in 40 C.F.R. § 2.203(b). Such an assertion shall be substantiated adequately in accordance with 40 C.F.R. § 2.204(e)(4) at the time the assertion is made. Physical, sampling, monitoring and analytical data shall not be claimed as confidential by the Respondent. Further, information to be included in the administrative record shall not be claimed as confidential. Information subject to such a claim of

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confidentiality will be handled in accordance with the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such claim of business confidentiality accompanies the information or documentation when it is submitted or made available to EPA, it may be made available to the public by EPA without further notice to the Respondent.

- F. Nothing in this Order shall limit EPA's information gathering authority under Federal law.

XIV. RECORD PRESERVATION

- A. The Respondent agrees to preserve, during the pendency of this Consent Order and for a minimum of six (6) years after its termination, all records and documents in its possession or in the possession of any of its divisions, officers, directors, employees, agents, contractors, consultants, successors and assigns that relate in any way to implementation of this Consent Order, or to hazardous substance management and/or disposal at the Site, including raw data, despite any document retention policy to the contrary. Respondent will use its best efforts to obtain copies of all documents that relate in any way to the Site and which are in the possession of its employees, agents, accountants, contractors, or attorneys. After this six-year period, the Respondent shall notify EPA at least sixty (60) calendar days prior to the destruction of any documents that relate to this Consent Order. EPA will then provide written notification to Respondent whether or not it wants to take possession of such documents. Upon request by EPA, the Respondent shall provide EPA with the opportunity to take possession of any such records.
- B. Within thirty (30) calendar days of the effective date of this Consent Order Respondent shall designate a custodian ("Custodian") for all such records and documents and shall notify EPA of the identity of that Custodian. Respondent may change its Custodian of records and documents upon written notification to EPA of such change.
- C. Respondent further agrees that any agreement between Respondent and an agent, contractor or consultant relating to performance of Work under this Consent Order shall require in writing said agent, contractor or consultant to maintain and preserve during the pendency of this Order and for a minimum of six (6)

years after its termination, all data, records and documents within its respective possession that relate in any way to this Order or to hazardous substance management and disposal at the Site.

- D. Respondent shall not destroy any records relating to this Consent Order until notified by EPA, in accordance with this Section, that EPA has waived its right to obtain such records from Respondent.

XV. DELAY IN PERFORMANCE AND STIPULATED PENALTIES

- A. For each day or any portion thereof that the Respondent fails to submit a report or document or otherwise fails to comply with the requirements of this Consent Order at the time and in the manner set forth herein, or in the Work Plan, including all documents made a part hereof, Respondent shall be liable for and Respondent shall pay, upon demand by EPA, the sums set forth below as stipulated penalties to EPA. Payment shall be due and owing within thirty (30) calendar days from receipt of EPA's demand letter. Interest at the rate of the current annualized treasury bill rate shall begin to accrue on the unpaid balance at the end of the thirty-day period, in conformance with 4 C.F.R. § 102.13.
- B. Checks in payment of stipulated penalties shall be made payable to the Hazardous Substance Superfund and shall be addressed to:

EPA, Region III
ATTENTION: Superfund Accounting
P.O. Box 360515
Pittsburgh, PA 15251-6515

All payments shall reference the name of the Site, the Respondent's name and address, and the EPA docket number of this Order. Copies of the transmittal letter and check shall be sent simultaneously to the EPA Project Manager and to the:

Regional Hearing Clerk (3RC00)
U. S. Environmental Protection Agency
841 Chestnut Building
Philadelphia, PA 19107

- C. Stipulated penalties shall accrue in the amount of \$1000 per day for the first week and \$2500 per day for each day thereafter.

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- D. The stipulated penalties set forth in this Section do not preclude EPA from pursuing other penalties or sanctions available to EPA for failure to comply with the requirements of this Consent Order.
- E. All penalties and interest shall begin to accrue on the date that performance is due or a violation occurs, and shall continue to accrue through the final day of correction of the noncompliance.
- F. Nothing herein shall prevent the simultaneous accrual of separate stipulated penalties for separate violations of this Consent Order.
- G. If the Respondent in good faith objects to the imposition of stipulated penalties, it may invoke the dispute resolution procedures under Section XVII, below. However, the Respondent shall not dispute the sums set forth above as stipulated penalty amounts. To the extent Respondent does not prevail upon resolution of the dispute, Respondent shall pay the penalties owed within thirty (30) calendar days of receipt of the resolution of the dispute. These penalties shall include all penalties that accrued prior to and during the period of dispute.
- H. Neither the filing of a petition to resolve a dispute nor the payment of penalties shall alter in any way Respondent's obligation to comply with the requirements of this Consent Order.

XVI. FORCE MAJEURE AND NOTIFICATION OF DELAY

- A. Respondent shall perform the requirements of this Consent Order within the time limits and manner set forth herein, unless the performance is prevented or delayed by events which constitute a force majeure event. Respondent shall have the burden of proving such a force majeure event. A force majeure event is defined as any event arising from causes not reasonably foreseeable and beyond the control of Respondent, which cannot be overcome by Respondent's best efforts to avoid the delay, and which delays or prevents performance by a date or manner required by this Consent Order. The requirement that the Respondent exercise "best efforts to avoid the delay" includes using best efforts to anticipate any potential force majeure event (1) as it is occurring and (2) following the potential force majeure event, such that the delay is minimized to the greatest extent practicable. Force majeure events do

not include increased costs of performance, changed economic circumstances, difficulties caused by reasonably foreseeable weather conditions that could have been overcome by best efforts, or failure to obtain Federal, state or local permits unless EPA determines that Respondent used best efforts to obtain such permits.

- B. The Respondent shall notify EPA of any delay or anticipated delay in achieving compliance with any requirement of this Consent Order. Such notification shall be made orally as soon as possible but no later than two (2) business days after Respondent or any of its agents or contractors becomes aware of such delay, or through the exercise of due diligence should have become aware of such delay, and in writing no later than seven (7) calendar days after any Respondent or any of its agents or contractors becomes aware, or through the exercise of due diligence should have become aware, of such a delay or anticipated delay. The written notification shall describe fully the nature of the delay, the reasons the delay is beyond the control of the Respondent (if applicable), the actions that will be taken to mitigate, prevent and/or minimize further delay, the anticipated length of the delay and the timetable according to which the actions to mitigate, prevent and/or minimize the delay will be taken. The Respondent shall adopt all reasonable measures to avoid and minimize any such delay.
- C. Any such delay that results from a force majeure event that cannot be overcome by the Respondent's best efforts to avoid the delay shall not be deemed to be a violation of its obligation(s) under this Consent Order, and shall not make the Respondent liable for the stipulated penalties contained in Section XV, "Delay in Performance and Stipulated Penalties", above. To the extent a delay is caused by a force majeure event, the schedule affected by the delay shall be extended for the time necessary to complete the work on an expedited basis, up to the period of the delay directly resulting from the force majeure event.
- D. Failure of the Respondent to comply with the notice requirements of this Section shall constitute a waiver of the Respondent's right to invoke the benefits of this Section with respect to that event.
- E. In the event EPA and the Respondent cannot agree that any delay in achieving compliance with the requirements of this Consent Order has been or will be caused by a

force majeure event, the dispute shall be resolved in accordance with the provisions of the "Dispute Resolution Section", Section XVII of this Consent Order. The Respondent shall have the burden of proving that the delay was caused by a force majeure event that could not have been overcome by the Respondent's best efforts, the necessity of the proposed length of the delay, and that the Respondent took all reasonable measures to avoid and minimize delay.

- F. Modifications to this Order resulting from events that EPA agrees constitute a force majeure event shall be made in accordance with Paragraph XXV(A), "Subsequent Modification".
- G. Delay in completing one increment of the RI and FS does not automatically justify delay in timely achievement of subsequent increments.

XVII. DISPUTE RESOLUTION

- A. The resolution of any dispute concerning this Order between the Respondent and EPA shall be conducted in accordance with this Section.
- B. If Respondent objects to any EPA notification or action under this Consent Order, the Respondent shall notify EPA in writing of its objection(s) within fourteen (14) days of receipt of such notification or action. Said notice shall set forth the specific points of the dispute, the position the Respondent is maintaining should be adopted as consistent with the requirements of this Consent Order and the NCP, the basis for Respondent's position, and any matters that it considers necessary for EPA's determination. Receipt by EPA of such notification shall constitute "initiation of Dispute Resolution procedures" for the purposes of this Consent Order.
- C. Respondent shall have the burden of proving that EPA's costs have been calculated incorrectly or have been incurred in a manner inconsistent with the NCP in order to prevail in any dispute concerning costs under Section (XIX), below.
- D. EPA and the Respondent shall have an additional fourteen (14) days from the initiation of Dispute Resolution procedures to reach agreement. If EPA determines that a decision is particularly complex and that more time is necessary for resolution, EPA can, in its discretion, provide fourteen (14) additional days

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for dispute resolution. If agreement cannot be reached on any issue within this fourteen (14) or twenty-eight (28) day period ("the resolution period"), EPA, at the Branch Chief level or higher, will provide a written statement of its decision to the Respondent that will address the points raised by the Respondent, identifying potential areas of agreement and disagreement. Receipt of such statement of decision by Respondent shall constitute "resolution" of the dispute as that term is used in this Consent Order.

- E. Following resolution of the dispute, Respondent shall perform the Work that was the subject of the dispute in accordance with EPA's decision.
- F. Notwithstanding any other provisions of this Consent Order, no action or decision by EPA pursuant to this Consent Order shall constitute final agency action giving rise to any right to judicial review prior to EPA's initiation of judicial action to compel compliance with this Order.
- G. The existence of a dispute, as defined in this Section, and EPA's consideration of matters placed into dispute shall not excuse, toll or suspend any compliance obligation or deadline required pursuant to this Consent Order during the pendency of the dispute resolution process.
- H. The existence of a dispute under this Section shall not expand the time frame for completing particular tasks under this Order or the Work Plan. Thus, in the event the Respondent prevails in the dispute, the task must be completed in the remaining amount of time originally specified in the Order or Work Plan unless the time frame is modified formally through the dispute resolution process.
- I. While a matter is under dispute, stipulated penalties will continue to accrue, if applicable, in accordance with Section (XV).

XVIII. RESERVATION OF RIGHTS

- A. Except as expressly provided in this Consent Order, (1) each party reserves all rights and defenses it may have, and (2) nothing herein shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Order, including but not limited to the right to seek injunctive relief, and imposition of statutory

- penalties, fines and/or punitive damages. Nothing in this Consent Order shall affect EPA's removal authority or EPA's response or enforcement authorities including, but not limited to, EPA's right to seek injunctive relief, stipulated penalties, statutory penalties, and/or punitive damages. Respondent reserves all rights it may have to oppose and defend against such claims and actions and to assert any and all claims Respondent may have against EPA and/or any person or government agency.
- B. Compliance by Respondent with the terms of this Consent Order shall not relieve Respondent of its obligation to comply with applicable local, State or Federal laws and regulations.
- C. As provided by this Consent Order, EPA expressly reserves its right to disapprove of actions taken by the Respondent pursuant to this Order and Work performed by the Respondent, and reserves its right to request that the Respondent perform response actions in addition to those required in the Work Plan including approved modifications thereto, if it determines that such actions are necessary. In the event that Respondent chooses to perform such additional tasks, the Work Plan shall be reviewed and revised accordingly and the schedule for completion of the Work set forth in the Work Plan shall be extended to the extent necessary to accommodate the performance of additional tasks. In the event that the Respondent declines to perform such additional actions, EPA reserves the right to undertake such actions. In addition, EPA reserves the right to undertake removal and/or remedial actions at any time that such actions are appropriate under the NCP, to seek reimbursement for any costs incurred and/or to seek any other appropriate relief, including requiring Respondent to perform such actions. Further, EPA reserves the right to bring an action against Respondent under section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of all response costs, including oversight costs, incurred by the United States at the Site not reimbursed by the Respondent.
- D. If EPA requests, Respondent shall incorporate and integrate information supplied by EPA into the final RI and FS Reports.
- E. Following termination of the Order pursuant to Section XXVII, below, Respondent shall have resolved its liability to EPA for the performance of the RI/FS for the operable unit that is the subject of this Order,

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except for those aspects of the RI/FS that survive the termination of the Order pursuant to Section XXVII, below. The Respondent is not released from liability, if any, for any actions beyond the terms of this Order regarding removals, other operable units, remedial design/remedial action (RD/RA) of this operable unit, or activities arising pursuant to Section 121(c) of CERCLA, 42 U.S.C § 9621(c).

XIX. REIMBURSEMENT OF COSTS

- A. EPA will send the Respondent a bill(s) and an accounting(s) that sets forth costs EPA has paid with regard to preparation of the Work Plan.
- B. All amounts billed pursuant to paragraph A of this Section shall be due and payable by Respondent in three equal payments: Payment 1 no later than ninety (90) calendar days; Payment 2 no later than one hundred twenty (120) calendar days; and Payment 3 no later than one hundred eighty (180) calendar days, respectively, from receipt of such bill. Respondent shall remit its checks for the amounts of those costs made payable to the Hazardous Substance Superfund. If Respondent fails to make timely payments, interest shall begin to accrue on the entire unpaid balance of the bill on the 91st day, 121st and/or 181st day, respectively, even if there is a dispute or an objection to any portion of the costs. Checks should specifically reference the Site and be addressed to the address provided in paragraph D of this section.
- C. Following each annual anniversary date of this Order, EPA shall submit to the Respondent an accounting of response costs, including oversight costs, paid by the U.S. Government with respect to this Consent Order for the preceding billing and a bill for such costs. The accounting provided to Respondent by EPA will include a summary of all expenses claimed. Upon request, EPA intends to provide the Respondent with copies of documents evidencing such expenditures ("Backup Documentation"). Oversight costs shall include administrative, enforcement, inspection and investigative costs pursuant to Sections 104, 106 and 107 of CERCLA, 42 U.S.C. §§ 9604, 9606 and 9607, including all costs paid by EPA, its agents or contractors in connection with EPA's preparation of the Work Plan, Quality Assurance Project Plan and Field Sampling Plan, and oversight of the Work done by the

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Respondent under the terms of this Consent Order including, but not limited to, time and travel costs of EPA personnel and associated indirect costs, contractor costs, costs of compiling cost documentation, compliance monitoring, including the collection and analysis of split samples, inspection of RI/FS activities, Site visits, interpretation of Consent Order provisions, discussions regarding disputes that may arise as a result of this Consent Order, and review and approval or disapproval of reports.

- D. All amounts billed pursuant to paragraph C of this Section shall be due and payable by Respondent, no later than (60) calendar days, from of receipt of such bill. Respondent shall, within 60 calendar days of receipt of the demand from EPA, remit a check for the amount of those costs made payable to the Hazardous Substances Superfund. Interest shall begin to accrue on the unpaid balance on the 61st day, even if there is a dispute or an objection to any portion of the costs, or if the Respondent has requested Backup Documentation. Checks should specifically reference the Site and be addressed to:

EPA, Region III
ATTENTION: Superfund Accounting
P.O. Box 360515
Pittsburgh, PA 15251-6515

A copy of the transmittal letter and check shall be sent to the EPA Project Manager and to the EPA Region III Regional Hearing Clerk at the address specified in Paragraph (XV)(B), above.

- E. EPA reserves the right to bring an action against the Respondent pursuant to Section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of all response and oversight costs incurred by the United States related to this Consent Order and not reimbursed by the Respondent, as well as any other costs incurred by the United States in connection with response actions conducted pursuant to CERCLA at the Site.

XX. OTHER CLAIMS

- A. Nothing in this Consent Order shall constitute or be construed as a release from any claim, cause of action, or demand in law or equity against any person, firm, partnership or corporation not bound by this Consent Order for any liability it may have arising out of or

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relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous substances, hazardous wastes, pollutants or contaminants found at, taken to, or taken from the Site.

- B. This Consent Order does not constitute any decision on preauthorization of funds under Section 111(a)(2) of CERCLA, 42 U.S.C. § 9611(a)(2).
- C. By consenting to the issuance of this Consent Order the Respondent waives any claim to reimbursement for all Work performed and expenses incurred under this Consent Order it may have under Section 106(b) of CERCLA, 42 U.S.C. § 9606(b).

XXI. OTHER APPLICABLE LAWS

- A. All actions required to be taken pursuant to this Consent Order shall be undertaken in accordance with the requirements of all applicable local, state and Federal laws and regulations.
- B. Respondent shall, prior to any off-site shipment of hazardous substances from the Site to an out-of-state waste management facility, provide written notification to the appropriate state environmental official in the receiving state and to EPA's Project Manager of such shipment of hazardous substances. However, the notification of shipments shall not apply to any such off-site shipments when the total volume of such shipments will not exceed 10 cubic yards.
 - 1. The notification shall be in writing, and shall include the following information, where available: (1) the name and location of the facility to which the hazardous substances are to be shipped; (2) the type and quantity of the hazardous substances to be shipped; (3) the expected schedule for the shipment of the hazardous substances; and (4) the method of transportation. Respondent shall notify the receiving state of major changes in the shipment plan, such as a decision to ship the hazardous substances to another facility within the same state, or to a facility in another state.
 - 2. Respondent shall determine the identity of the receiving facility and state following the award

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of the contract for the RI/FS. Respondent shall provide all relevant information, including information under the categories noted in paragraph (1) above, on the off-site shipments, as soon as practical after the award of the contract and before the hazardous substances are actually shipped.

XXIII. INDEMNIFICATION OF THE UNITED STATES GOVERNMENT

Respondent agrees to indemnify and save and hold harmless the United States Government, its agencies, departments, agents, and employees, from any and all claims or causes of action arising from or on account of acts or omissions of Respondent or its agents, independent contractors, receivers, trustees and assigns in carrying out activities required by this Consent Order. This indemnification shall not be construed in any way as affecting or limiting the rights or obligations of Respondent or the United States under their various contracts.

XXIII. LIABILITY OF THE UNITED STATES GOVERNMENT

Neither the United States Government nor any agency thereof shall be liable for any injuries or damages to persons or property resulting from acts or omissions of Respondent, or of its employees, agents, servants, receivers, successors, or assignees, or of any persons, including, but not limited to firms, corporations, subsidiaries, contractors, or consultants, in carrying out activities pursuant to this Order, nor shall the United States Government or any agency thereof be held as a party to any contract entered into by Respondent in carrying out activities pursuant to this Order.

XXIV. MISCELLANEOUS

- A. Except as otherwise provided in this Order, the term "days" shall mean calendar days. If a due date for any task or deliverable falls on a Federal holiday or weekend, the due date for that task or deliverable shall be the next working day.
- B. In the event of conditions posing an immediate threat to human health or welfare or the environment, Respondent shall notify EPA and the Commonwealth immediately. In the event of unanticipated or changed

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circumstances at the Site, Respondent shall notify the EPA Project Manager by telephone within 24 hours of discovery of the unanticipated or changed circumstances. In addition to the circumstances for modification specified in the NCP, in the event that EPA determines that the immediate threat or the unanticipated or changed circumstances warrant changes in the Work Plan, EPA shall modify or amend the Work Plan in writing accordingly. Respondent shall perform the Work Plan as modified or amended.

XIV. SUBSEQUENT MODIFICATION

- A. This Consent Order may be amended by mutual agreement of EPA and the Respondent. Such amendments shall be in writing and shall have as their effective date, the date on which such amendments are signed by EPA.
- B. Minor modifications to the requirements of the Work Plan, specifically those which do not materially or significantly affect the nature, scope or timing of the Work to be performed, may be made by mutual agreement of the Project Managers. Any such modifications must be in writing and signed by both Project Managers. The effective date of the modification shall be the date on which the letter from EPA's Project Manager is signed.
- C. Respondent agrees that any request for modification of this Order, whether by amendment or minor modification, shall be accompanied by a statement of how such modification shall affect the Work Plan schedule.
- D. Following EPA approval of a modification to a schedule, Respondent agrees, within thirty (30) calendar days of receipt of the modification, to supply to EPA a revised Work Plan schedule and accompanying charts which shall reflect the approved modifications to such schedule.
- E. Any reports, plans, specifications, schedules, or other submissions required by this Consent Order and any modifications thereto are, upon approval by EPA, incorporated into this Consent Order. Any non-compliance with such EPA-approved or modified reports, plans, specifications, schedules, or other submissions shall be considered non-compliance with the requirements of this Consent Order and will subject the Respondent to the requirements of Section XV, "Delay in Performance/and Stipulated Penalties", above.
- F. No informal advice, guidance, suggestions or comments

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by EPA, other than a formal approval as specified in Paragraphs (A) and (B), above, regarding reports, plans, specifications, schedules and any other writing submitted by the Respondent or regarding any other requirement of this Consent Order will be construed as relieving the Respondent of its obligation to obtain formal approval when required by this Consent Order, and to comply with requirements of this Order, unless formally modified.

XXVI. EFFECTIVE DATE

The effective date of this Consent Order shall be three business days following the date on which EPA forwards a fully executed true and correct copy to Respondent via overnight delivery.

XXVII. TERMINATION AND SATISFACTION OF ORDER

- A. When Respondent believes that all of the requirements of this Consent Order have been completed, Respondent shall give written notice to EPA ("Respondent's termination petition").
- B. The Respondent's obligations to EPA under this Consent Order shall terminate and be deemed satisfied upon the Respondent's receipt of written notice from EPA, following receipt of Respondent's termination petition, that the Respondent has demonstrated and certified, to the satisfaction of EPA, that all the terms of this Consent Order have been completed. This notice shall not, however, terminate Respondent's obligation to comply with Sections (XIV) (Record Preservation), (XVIII) (Reservation of Rights), (XIX) (Reimbursement of Costs), and (XXI) (Other Applicable Laws).

XXVIII. NO ADMISSIONS

- A. By entering in this Consent Order, by taking any action in accordance with it, the Respondent does not admit any of the findings of fact, conclusions of law, determinations or any of the allegations contained in this Consent Order, nor does Respondent admit liability for any purpose or admit any issues of law or fact or any responsibility for the alleged release or threat of release of any hazardous substance into the environment. The participation of the Respondent in this Consent Order shall not be admissible against

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Respondent in any judicial or administrative proceeding, except for an action by EPA to enforce the terms of this Consent Order, or actions to which EPA is a party, which allege injury based, in whole or in part, on acts or omissions of Respondent in connection with performance under this Consent Order.

- B. It is the intent of the parties hereto that neither the terms of this Consent Order, including any allegation, finding, conclusion or determination set forth herein, nor the act of performance hereunder, shall be used against Respondent as a collateral estoppel in any other proceeding with EPA, any state environmental agency, or with any other governmental agency, or with any other person.
- C. By signing and consenting to this Consent Order or by taking any actions pursuant to this Consent Order, Respondent does not concede that the RI/FS or any other investigation at the Site is necessary to protect the public health or welfare or the environment, or for any other reason; that the methodologies or protocols prescribed by applicable EPA guidance or described or noted herein or otherwise required by EPA for performance of work pursuant to this Consent Order are the only ones appropriate for the proper conduct of this RI/FS; or that a release or threatened release of a hazardous substance at or from the Site, or any disposal of a hazardous substance at the Site, may present an imminent and substantial endangerment to the public health or welfare or the environment.

IT IS SO AGREED AND ORDERED:

DATE: 6-16-93

BY: Stanley L. Laskowski
STANLEY L. LASKOWSKI
for ACTING REGIONAL
ADMINISTRATOR
U.S. EPA,
REGION III

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Docket No. III-93-28-DC
Culpeper Wood Preservers Site

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DATE:

5/7/93

BY:

Joseph R. Daniel
JEFFERSON HOMEBUILDERS,
INC.

JOSEPH R. DANIEL,
PRESIDENT

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Docket No. III-93-28-DC
Culpeper Wood Preservers Site

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The undersigned hereby certify that they are authorized to execute this Consent Order on behalf of Jefferson Homebuilders, Inc. and to bind Jefferson Homebuilders, Inc. to the terms and conditions herein.

Date:

5/7/93

BY:

Joseph R. Daniel
Jefferson Homebuilders, Inc.
Joseph R. Daniel
President

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